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The Legend of the Justified True Belief Analysis*

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In the last few decades a certain picture of the history of epistemology has gained wide currency among epistemologists. The Legend, as I will call it, is summarised in the claim that:

Edmund Gettier's landmark paper successfully refuted the traditional analysis of knowledge. (Sosa et al., 2009, 189)

As my label indicates, I think that the Legend is false. Not that Edmund Gettier did not refute the Justified True Belief analysis of knowledge. He did. But the analysis was not the traditional one.

Even though the Legend figures in almost every epistemology handbook, I do not expect a strong resistance to the claim that it is false. The Legend is not widespread because it has been powerfully defended—it has hardly been defended *at all*—but because no better picture is available.¹ Such a picture is precisely what this paper intends to offer. Call it the New Story.

Like the Legend, the New Story is painted in broad strokes. It ignores a lot of historical detail and involves a significant amount of rational reconstruction. Yet I think it offers a recognisable portrait of the history of epistemology and provides an illuminating perspective on the present of the discipline.

The New Story goes as follows. There is a traditional conception of knowledge but it is not the Justified True Belief analysis Gettier attacked. On the

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¹Thus Mark Kaplan's (1985, 352-353) criticisms and Ayers's (2003, 15) incidental remark that the Legend is "manifestly false" have largely been ignored. Antognazza (2015, 167-73) and Pasnau (2013) are the most extensive criticisms of the Legend to date. I discuss them in section 4.

traditional view, knowledge consists in having a belief that bears a *discernible mark of truth*. A *mark of truth* is a truth-entailing property: a property that only true beliefs can have. It is *discernible* if one can always tell that a belief has it, that is, a sufficiently attentive subject believes that a belief has it if and only if it has it. Requiring a mark of truth makes the view *infallibilist*. Requiring it to be discernible makes the view *internalist*. I call the view *Classical Infallibilism*.²

Classical Infallibilism is not the Justified True Belief analysis Gettier attacked. In Gettier's cases what is discernible to the subject is compatible with error. So Classical Infallibilists do not have trouble classifying them as cases in which one does not know. Their problem is rather to classify anything we seem to know as knowledge, for few of our beliefs seem to bear discernible marks of truth. That contrasts vividly with the view Gettier attacked, which had no sceptical implications but ran into Gettier-style counterexamples.

Classical Infallibilism is manifest in Descartes's epistemology and the Hellenistic debate on *criteria of truth*. There is evidence of it in the writings of many others. More importantly, there are few, if any, clear examples of Western philosophers *rejecting* it until fairly recently. The New Story's bold hypothesis is that Classical Infallibilism was endorsed by virtually all Western philosophers until the mid-twentieth century.

Early on Classical Infallibilists divided into two camps: *Dogmatists*, who thought that many of our beliefs bear discernible marks of truth, and *Sceptics*, who thought that almost none does. The two were in stalemate for centuries. In modern times, however, Dogmatism became increasingly untenable. That revived *Probabilist Scepticism*, a brand of Scepticism according to which even though we do not know much, we are justified in believing many things. But most strikingly, that spurred *Idealism*, a brand of Dogmatism that hopes to restore the idea that our beliefs bear discernible marks of truth by adopting a revisionary metaphysics.

In mid-twentieth century analytic philosophy Idealism fell apart and Scepticism was barred by common sense philosophy and ordinary language philosophy. Some philosophers eventually rejected Classical Infallibilism itself. But there were two main ways of doing so. Some rejected the *infallibility* requirement. Like Probabilistic Sceptics, they held that a *mere indication* of truth justifies belief—where a mere indication of truth is a property that somehow indicates the truth of a belief without entailing it. What they added was that such an indication, in conjunction with truth, would be sufficient for knowl-

²The idea that traditional conceptions of knowledge are "infallibilist" is not new (see e.g. Lehrer, 1974, 78; Fumerton, 2006, 14–5, 59). What the New Story adds is a more precise treatment of the relevant notion of infallibility, the idea that Classical Infallibilism does not face the Gettier problem, and the idea that the two aspects of Classical Infallibilism (discernibility and truth entailment) gave rise to the contemporary divide between internalism and externalism.

edge. That is the familiar Justified True Belief analysis that Gettier refuted. That is also the source of the *Internalist* views that insist on a discernible condition on justified belief or knowledge. Others rejected the *discernibility* requirement instead. They maintained the idea that knowledge requires a mark of truth but they did not require it to be discernible. That is the source of *Externalist* views in epistemology. The demise of Classical Infallibilism as a theory of knowledge was quick and complete: once they gave it up analytic epistemologists never looked back. Nevertheless it seems to linger on in the way some epistemologists think of *evidence*.

The New Story is a crude picture, but it makes sense of a range of facts about the history of Western epistemology: why Gettier problems appeared so late, why debates over Scepticism were central, why contemporary epistemology divides into Externalist and Internalist trends, why it is awkward to locate historical views in the divide, and more.

An extensive defence of the New Story is beyond my abilities and the scope of this paper. My aim is rather to set it out as a hypothesis worthy of investigation. The best way to do this is to make its overall structure clear. I thus state positions in ideal forms before illustrating them with representative historical cases. I am well aware that any ascription of an idealised view to any particular philosopher—not to mention *classes* of philosophers—is bound to face many wrinkles that have to be ironed out in some way or other. I will nevertheless avoid cumbersome hedging and favour simplicity over accuracy. In history as elsewhere, progress can be achieved through clear and simple models whose limits are easy to test.

The paper is structured as follows. Section 1 traces the origins of the Legend and highlights some facts that would be puzzling if it were true. Section 2 sets out Classical Infallibilism. Section 3 shows Classical Infallibilism at work in a central debate in the history of epistemology: that between Stoics and Academic Sceptics. Section 4 reviews salient evidence for and against the hypothesis that until 1950 virtually all Western philosophers were Classical Infallibilists. Section 5 recounts the fall of Classical Infallibilism and shows how it illuminates the contemporary landscape. Section 6 draws some lessons and indicates lines of further research.

It is my hope that this paper will open up history to contemporary epistemologists and contemporary epistemology to historians. However, readers exclusively interested in epistemology may conveniently skip sections 3 and 4 and readers exclusively interested in history may conveniently skip sections 1 and 5.³

³*Abbreviations for historical citations.* Hellenistic philosophers are cited from Long and Sedley's (1987) collection (e.g. LS 40H). Plato, Aristotle, Descartes and Kant are cited in the usual

1 The Legend and its puzzles

The Legend is the claim that “Edmund Gettier’s landmark paper successfully refuted the traditional analysis of knowledge” (Sosa et al., 2009, 189). The claim figures in almost every contemporary handbook.⁴ It has two components: the Justified True Belief analysis was the traditional one, and Gettier refuted it. They cannot both be true. As Gettier (1963) stresses, his counterexamples assume that justification does not entail truth.⁵ But, as I will argue at length below, insofar as we can identify justification conditions on knowledge in traditional views, they are truth-entailing. Thus traditional views are not the ones Gettier refuted. Be that as it may, it is worth listing a few facts that would be puzzling if the Legend was true.

Why is it so hard to find statements of the analysis before the mid-twentieth century? Plato, Kant and Russell are usually cited.⁶ But that is it. I am not aware of any other putative statement in the Western tradition. If there was one it would have been widely reported by now. So what about Aristotle, Epicurus, the Stoics, the Sceptics, Thomas, Ockham, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Reid or Kant, to name a few?

Why did nobody notice Gettier-style cases? The *Theaetetus* is one of the most widely read philosophical texts in history. It ends with the suggestion that a true belief with an “account” is not sufficient for knowledge. So, if the Legend is correct, it raises the question whether justified true belief is sufficient for knowledge. But somehow nobody noticed counterexamples before the twentieth century. Yet Gettier-style cases are not outlandish. A jury may clear a defendant on the basis of an apparently reliable testimony; the testimony turns out to be false, but the defendant is innocent nonetheless. In fact, the trial example almost literally appeared in the *Theaetetus* (201c-d). So why did nobody notice?

Why were Gettier-style cases presented as cases of true belief that is not knowl-

standard editions, respectively Estienne (e.g. *Meno* 98a), Bekker (e.g. *Posterior Analytics* 79b10), Adam-Tannery (e.g. *AT* VII:141) and Akademie (e.g. *AA* 9:72) except for the *Critique of Pure Reason* cited in the A/B edition pagination (e.g. A822/B850). Other historical works are cited in their own divisions (e.g. bk. 2 q. 1). References to translations are provided in the course of the text.

⁴For a recent sample, see Moser (2002, 4, 29), Huemer (2002, 435), Feldman (2003, 16), Pritchard and Neta (2008, 5-6), Sosa et al. (2009, 189), Dancy et al. (2010, 395), Hetherington (2011, 119), Ichikawa and Steup (2014), Goldman and McGrath (2015, 51-2). Dancy (1984, 22), Zagzebski (1999, 100n14), Williams (2001, 16, 26n), Fumerton (2006, 14) and Pritchard (2013, 23) echo the Legend but without straightforward endorsement. Notable exceptions are Nagel (2014, ch. 4) who only calls it the “leading theor[y] of [Gettier’s] day” and Audi (2010) who avoids calling it “traditional” entirely. To be fair, many authors remain vague about what they mean by calling the Justified True Belief analysis “traditional”. But they presumably mean something stronger than “held by a few philosophers in the 1950s” or “widely assumed to be traditional”.

⁵That is also assumed by subsequent Gettier-style cases. For instance, in Ginet-Goldman’s (1976, 772-3) fake barn case, it is assumed that whatever justifies the subject’s belief that there is barn would have done so even if they were looking at a fake.

⁶Plato, *Theaetetus* 202d, *Meno* 98a; Kant, *Critique of Pure Reason* A822/B850; Russell (1948, 171).

edge? Some recognisably Gettier-style cases were pointed out before Gettier's paper: Plato's jury (*Theaetetus* 201c-d), Meinong's doorbell and Aeolian harp cases (Meinong, 1973, 619; 1906, 30–31; 1973, 398–399), Russell's Balfour/Bannerman and stopped clock cases (Russell, 1912, ch. 13; 1948, 170–1). All stories involve true belief, and nothing in them indicates that their character's beliefs are unjustified—quite the opposite.⁷ Yet both Plato and Russell put them forward as cases of *true belief* that is not knowledge, not of *justified true belief* that is not knowledge. Worse, Plato and Russell go on to state what looks like a Justified True Belief analysis.

Why was the Justified True Belief analysis not presented as the traditional one? The philosophers Gettier targeted did *not* present their views as traditional. Chisholm (1956, 447; 1957, 1, 16) first put it forward as something he “suggested”. It is only after the publication of Gettier's paper that he called it a “common” one (1966, 1) and later “the traditional [one]” (1977, 102). Ayer (1956, 41) sets out his view against the “quest for certainty” which “has played a considerable part in the history of philosophy”. He gives no indication that he is reviving a traditional view; quite the opposite.

How the Legend appeared. Looking at what philosophers said about traditional views of knowledge *before* Gettier's paper sheds light on how the Legend appeared. In a 1949 introduction to epistemology the Oxford philosopher A. D. Woozley writes:

According to the traditional view, which derives from Plato, knowledge and belief are mental faculties, each *sui generis*, no more to be defined one in terms of the other than are, say, love and friendship. (Woozley, 1949, 176)

With the *Republic* (473c-480a) in mind, Woozley ascribes to the tradition a view associated with his predecessors John Cook Wilson (1926, 34-47) and Harold A. Prichard (1950, 86), according to which knowledge is a *sui generis* mental state that cannot be defined in terms of belief, let alone as justified true belief.⁸ Since knowledge entails truth, it is an *infallible* mental state. That is the view that Ayer (1956, 15-23) contrasts with his.

In 1960, Gilbert Ryle still ascribes the infallible mental state view to the tradition in his “Epistemology” entry for Urmson's *Concise Encyclopedia*.⁹ Seven

⁷As Burnyeat (1980, 177-178) points out concerning Plato's case. Meinong's cases are less well-known than Plato's and Russell's. In the doorbell one, a man has a pathological ringing in his ears at the same time as somebody rings the doorbell. In the Aeolian harp one, somebody who lived near such a harp for a long time has become hard of hearing so that they sometimes hallucinate a harp sound at the same time as the harp rings.

⁸See also Price (1934, 229–31).

⁹Ryle (1960). He only discusses Locke and modern philosophers. Entries were not signed in the first edition but Ryle is named in later ones (Rée and Urmson, 2004).

years later, in the “Knowledge” entry for Edward’s *Encyclopaedia*, Anthony Quinton (1967) writes that the Justified True Belief analysis was the traditional one and that it has been refuted by Gettier. What happened? Woozley (1949, 181-184), Malcolm (1952, 179–80) and Ayer (1956, 21) all took the infallible mental state view to have sceptical consequences. That was deemed unacceptable and prompted Malcolm, Ayer and Chisholm to defend the idea that fallible justification and truth were sufficient for knowledge. Gettier (1963, 121n) was perhaps the first to note that a formally similar account appeared in Plato.¹⁰ Soon some called the Justified True Belief analysis “traditional” and by 1967 the Legend coalesced.

If that is right the New Story is not so new. A fairly close view was widespread at the time the Justified True Belief analysis was introduced. But it was lost on the following generation of epistemologists.¹¹

2 Classical Infallibilism

Epistemological views varied so much across history that one may doubt whether there is such a thing as “the traditional conception of knowledge”. I think there is, at least in the Western tradition. It goes as follows:

Classical Infallibilism One knows p iff one has a belief that p bears a *discernible mark of truth*, where:

A property of a belief is a *mark of truth* iff necessarily, only true beliefs have it,

A property of a belief is *discernible* iff necessarily, a sufficiently attentive subject believes that a belief of hers has it if and only if it has.

Section 5 I introduce other forms of Infallibilism. In this section “Infallibilism” refers to Classical Infallibilism only.¹²

As the definition makes clear, nothing special is meant by “mark” and “bearing a mark”. A mark is simply a property of beliefs; a belief “bears” a mark if it has the property. For instance, the *truth* of a belief is (trivially) a mark

¹⁰Some may also have remembered that Russell (1948, 140) called a formally similar analysis “traditional”.

¹¹The shift creates a tension that is particularly visible in Chisholm’s *Theory of Knowledge*. The first edition merely calls the analysis “common” (1966, 1) but the second calls it “traditional” (1977, 102). Chisholm says that Gettier only refutes view that assume that there are justified (“evident”) false beliefs (1977, 103). He also thinks that the assumption was rejected at least up until the seventeenth century (1977, 15n). Yet he claims that Gettier refuted the “traditional” analysis (1977, 103).

¹²The present account of Classical Infallibilism owes much to Van Cleve (1979), Frede (1987, 1999) and Barnes (1990, 136–7). That is not to say that any of them would endorse it. Note that like DeRose (1992b) I think Van Cleve’s account is right on Descartes’s *cognitio* but does not properly take into account his distinction between *cognitio* and *scientia*. See sec. 4.2.

of truth. But it is not discernible, since even an attentive subject may believe that one of her beliefs is true while it is not. By contrast, *having the content that it rains* seems to be a discernible mark: a sufficiently attentive subject will believe that a belief of hers has the content that it rains if and only if it has.¹³ But that is not a mark of truth, since some beliefs that have that content are false. Descartes's "clarity and distinction" is a prototypical example of a putative discernible mark of truth: on his view, only true beliefs can have a "clear and distinct" content and a sufficiently attentive subject will believe that a belief has a clear and distinct content if and only if it has.¹⁴

If Infallibilism were put forward today several issues of detail would need to be addressed. First, the definition of marks of truth is too permissive. The property of *having the content that 331 is prime* is one that only true beliefs have. It may also be discernible. Yet somebody may believe that 331 is prime without thereby knowing that it is. To avoid that, we should say that a property is a mark of truth if it belongs to a *relevant kind* of properties that all entail truths. *Having the content that 331 is prime* is of a kind that includes *having the content that 333 is prime*, which is not truth-entailing. Second, a similar refinement is needed for discernibility. There may be some brain pattern *C* such that necessarily, one believes that one's belief is *realised by C* just if it is. But we do not want *being realised by C* to count as a discernible property. Again, we should say that a mark is discernible only if marks of its kinds are such that attentive subjects discern them. What kinds count as "relevant"? We may leave it open. Note that the shift to kinds makes Infallibilism more stringent, so it does not threaten the main claim I will make: that Infallibilism leads to Scepticism. Third, we should specify whether our notion of necessity is restricted, say, to physical possibility. Fourth, we should clarify sufficient attention. It is implicitly relative to a belief: a mark of a belief is discernible if it is discerned by a subject attentive enough *to that belief*. We need not assume that subjects directly refer to their belief; it is enough for them to think of it under a description such as "my belief that 331 is prime". The definition does not prevent the beliefs of an unreflective creature from bearing discernible marks provided *sufficiently attentive* versions of that creature would be able to reflect on their own beliefs. More generally, being sufficiently attentive involves an idealised version of the subject. The more generous the idealisation, the more permissive discernibility is. Some *recherché* cases may cause further trouble but we need not get into

¹³Or so it seems. Williamson's (2000, chap. 4) anti-luminosity argument can be adapted to argue that there must be cases where even a sufficiently attentive subject could be mistaken about whether a belief of hers has the content that it rains; and more generally, to argue that nothing is discernible. However, that is a surprising—and still controversial—result, and it is a fair bet that it would have come as a surprise to past philosophers too.

¹⁴See section 4.

them.¹⁵ Sixth, a basing condition is missing. A belief's *having the content that one is in pain and being held by a person in pain* is a mark of truth and one may think it is discernible. Yet a person in pain who believes that they are in pain only because their crystal ball says so does not know that they are in pain. The account should require that the belief be somehow based on its bearing a discernible mark of truth.¹⁶ One option is to introduce a separate basing condition. Another is to restrict our choice of marks to properties of the kind *being based on thus-and-so*. The second is more stringent as it requires basing facts themselves to be discernible.

Until recently philosophers hardly ever raised such issues. Sometimes we can argue that they implicitly adopted some answer or that their views committed them to one. But it is often pointless to ask what their answer would have been.

Discernibility is akin to two notions in the recent epistemology literature: *luminosity* and *cognitive access*. Some epistemologists talk of what is "cognitively accessible" to a subject. That is sometimes glossed as facts the subject is "capable of becoming aware of" (BonJour, 2010, 364) or as facts she is capable of becoming aware of "upon reflection" (Chisholm, 1977, 16–7). On an ordinary reading of these phrases, I am aware that it is daylight now and I am capable of becoming aware upon reflection that I ate some bread yesterday. That is not, however, the way these epistemologists use these phrases. Their guiding intuition is that facts one has "access" to are just those facts that one would still know if one were in some Cartesian Demon scenario. But they do not *define* the notion that way; rather, it is supposed to follow from some natural notion of "access" that what we have access to withstands Descartes's Demon. I suggest that the notion of discernible fact is the one they have in mind.¹⁷ Williamson (2000, 95) calls a condition—something a subject is in at a certain time—*luminous* just if necessarily, a subject who is in that condition

¹⁵For instance, if necessarily, sufficiently attentive subjects believe that they are attentive, then *being an unattended-to belief* turns out to be trivially discernible. It is unclear that the result is bad. If it is, we may say that discernibility requires the antecedent to be non-trivially satisfied.

¹⁶It may seem paradoxical to say that a belief could be based on some of its own features. To see that is not, consider a parallel with action. I may run from A to B *because that is a way of reaching B*, or *because that is a way to exercise*. We may then say that my undertaking the action was based on the action having these features. Similarly I may form a belief on the basis of certain features it would have if formed.

¹⁷Contrast Fumerton's (2006, 53) suggestion that the intended notion of "access" is access by *introspection*. Introspection is supposed to be a reflective way of finding out about one's own *internal mental states*. Thus while in an ordinary sense of "reflection", one can find out by reflection whether one has eaten bread yesterday (an external fact), whether one's heart is beating (an internal, non-mental fact) or whether one saw a cat yesterday (a non-internal mental state), these are not instances of introspection, because the subject-matter of introspection is restricted to internal mental states. But if introspection plays a special epistemological role, it cannot be merely because it has a distinctive subject-matter. Rather, introspection is singled out because—it is assumed—it is a way of knowing that has a special property. I suggest that the property is discernibility: it is assumed that facts that can be known by introspection are discernible.

is in position to know that they are in it. *Being in pain* is a candidate for being a luminous condition, for instance. Discernibility is intended to capture the same alleged phenomenon. The difference is that luminosity is defined in terms of what one is a position to *know*, while discernibility is defined in terms of what attentive subjects would *believe*. The advantage of the notion of luminosity is that it requires less of the refinements the notion discernibility needs. The drawback is that using it would not allow us to give Infallibilism the familiar form of a reductive analysis. For the sake of familiarity I use the reductive form. But my main claims would not be affected by replacing discernibility with luminosity.

Historically many philosophers adopted a foundationalist outlook on which some knowledge is basic and the rest derived. Basic knowledge was conceived as above. Derived knowledge was thought to derive from knowledge through some sort of *truth-preserving* inference. Do we need an additional clause for it? Not necessarily. It think these philosophers took the fact that some belief was inferred from others in the relevant way to be discernible as well. If so, derived beliefs would bear complex discernible marks of truth along the lines of: *being inferred in such and a such a way from beliefs that bear such and such marks*. A difficulty arises with long chains of inference since premise beliefs may have lost their marks by the time the conclusion is reached. The difficulty was seldom raised.¹⁸ We set it aside.¹⁹

Some philosophers additionally required that the mark *forces assent*. That is, the property should be one that cannot be present without the subject's being inclined to believe. Call that a *convincing* mark. We will treat it as an optional component of Infallibilism.

Many past philosophers freely move between *objectual* and *propositional* knowledge. To accommodate their views we may broaden the notion of truth to some notion of *correct* representation. We leave the complication aside.

Crucially, a (convincing) discernible mark of truth is *all* that Infallibilism requires. It does not additionally requires that one knows, or believes, or is aware that a given mark is truth-entailing.²⁰ On some conceptions of discernible marks, Infallibilism will *entail* various principles such as: if *M* is a discernible

¹⁸Some take the difficulty to be central to Descartes's *Meditations*. See Van Cleve (1979) for critical discussion.

¹⁹Note that Infallibilism is not wedded to foundationalism. One could think that *cohering in such-and-such a way with one's other beliefs* is a discernible mark of truth. A coherentist version of Infallibilism results. Russell (1948, 142) states the "coherence theory of knowledge" in such terms and loosely attributes it to Hegel. More radically, one could think that coherence is a property of *sets* of beliefs that guarantees that *most* beliefs in a set are true—perhaps without guaranteeing of any single one that it is true. A holistic version of Infallibilism results on which knowledge is not a property of individual beliefs but of collections of them. Davidson (2001) may have held such a view.

²⁰Compare Van Cleve (1979) and Barnes (1990, 136–7).

mark of truth then a belief *that M is truth-entailing* bears a discernible mark of truth; if one's belief that *p* bears a discernible mark of truth then one's belief *that one knows p* bears one too, and so on. But such principles are at best consequences of how discernible marks are conceived, not additional requirements on knowledge.

3 Classical Infallibilism in Hellenistic Epistemology

This section shows Classical Infallibilism at work in Hellenistic epistemology. Why Hellenistic epistemology? As Brunschwig (1999, 229) writes, “it is generally agreed that the Hellenistic period is the great age of ancient epistemology”. Socrates, Plato and Aristotle mostly discussed *expert* knowledge: geometry, astronomy, medicine, politics, philosophy and so on—what we may now call *theoretical disciplines* or *sciences*.²¹ Their Hellenistic successors were squarely interested in ordinary knowledge: knowing that something is sweet, that something is a dog, that someone is your child (LS 39C, 40H). The shift was so significant that Brunschwig (1999) calls it an “epistemological turn”.²² The founders of two new schools, Epicurus (341-271) and Zeno of Citium (334-262), argued that there were “criteria of truth”, yardsticks with which opinions could be tested for knowledge. Soon after Arcesilaus took the head of the Academy (c.273 to c.242) and gave it a distinctively sceptical orientation. For the next two centuries, Greek epistemology was dominated by the sharp and sustained debate between the Stoa of Zeno and Chrysippus (head 232-c.206) and the ‘New Academy’ of Arcesilaus and Carneades (head from mid-second century BCE to 137). It stalled as Athens’s great schools disintegrated around 100 BCE. We find it recorded in Cicero’s *Academica* and in Sextus Empiricus’s *Against the professors* as well as in various other sources—though what remains is but a fragment of what there was. By then, the concepts and doctrines of Stoic and Academic epistemology were assimilated in the philosophical com-

²¹When Socrates claimed not to “know” anything he did not seem to deny that he knew that he was standing, in Athens, or awake. See Vlastos (1985) for further discussion. For Aristotle, see Burnyeat (1981), Irwin (1988, 118), Barnes (1993, 82), Pasnau (2013, 991–3); though see Irwin (2010) for a more guarded view. For Plato, see Burnyeat (1970, 1990, 216–8), Annas (1982), Nehamas (1984, 1985) and Kaplan (1985, 351–3); but see Fine (2004, 70) for an opposite view. While the *Republic* plausibly deals with a scientific ideal (Pasnau, 2013, 990n4), I agree with Fine that some of Plato’s examples in the *Meno* and the *Theaetetus* (knowing the way to Larissa, knowing whether a defendant is guilty) suggest that he intends to cover ordinary knowledge. I discuss Plato’s views in section 4.

²²The shift may have been prompted by radical sceptical challenges (Long and Sedley, 1987, xviii): “Anaxarchus and Monimus [...] compared existing things to stage-painting and took them to be like experiences that occur in sleep or insanity” (LS 1D). See Brunschwig (1999) for further discussion.

mon ground and were poised to have a lasting influence.²³

Stoics distinguished two knowledge-like states: *cognition* and *knowledge*.²⁴ By “knowledge”, they meant rich systems of cognitions that are immune to objections.²⁵ That is close to Plato’s and Aristotle’s picture of expert knowledge.²⁶ Stoics treated it as an ideal that few, if any, had ever reached. Though they use the ordinary Greek word for knowledge we would rather call that *wisdom* or *science*.²⁷ By “cognition”, however, they meant something much more like what we would ordinarily call “knowledge”.²⁸ Here we are interested in their theory of “cognition”, and we will simply call it *knowledge*.²⁹

Knowledge is assent to a cognitive impression (LS 40B). Impressions are quite literally images imprinted into the mind. They have content. We can assent to them, that is, believe their content, or not.³⁰ Among impressions,

²³See Frede (1987, 176). The last head of Plato’s Academy, Philo, relaxed scepticism to the point of allowing the formation of “convincing” opinion (see below note 72). That was widely perceived to make the Academic doctrine unstable and apparently prompted the departure of two talented pupils who founded influential schools. Aenesidemus founded a ‘proper’ Sceptical school, the Pyrrhonist one, to which Sextus Empiricus (second century CE) belonged. Antiochus founded a new dogmatic Academy that adopted the Stoic’s conception of knowledge—presented as Plato’s own. See Long and Sedley (1987, 449). Thus Epicureans aside, all major schools in the first century BCE inherited the conception of knowledge from the Stoic-Sceptic debate. The neo-Platonic school in particular would influence Augustine whose *Contra Academicos* was in turn the main source on scepticism for early medieval authors.

²⁴See e.g. LS 41A. The word translated as “cognition” is *katalēpsis*, a neologism that literally means *apprehension* or *grasping*. Cicero translates *perceptio*, whose original meaning is taking, collecting (as in “perceiving taxes”). “Knowledge” is *epistēmē*.

²⁵See LS 41A, 41B, 41C, 41H and Annas (1990, 187–188). “Immune to objections” corresponds to the Stoic phrase “firm and unchangeable by reason”, which Long and Sedley (1987, 257) interpret as being “impregnable to any reasoning that might be adduced to persuade a change of mind”.

²⁶See Fine (2003, 114–5) on Plato’s coherentism about “knowledge” and Barnes (1993, xii–xiii) and Burnyeat (1981) on Aristotle’s demonstrative conception of “knowledge”.

²⁷See Barnes (1980, 204): “The verb ‘*epistasthai*,’ and its cognates ‘*epistēmē*’ and ‘*epistēmōn*,’ are not philosophical neologisms; they occur frequently in Greek literature from Homer onwards, and they are there correctly translated by ‘know’ and its cognates.” In the Stoic context, Long and Sedley nevertheless translate *epistēmē* as “scientific knowledge” (Long and Sedley, 1987, 257).

²⁸Long and Sedley (1987, 257): “It would be possible to translate *katalēpsis* by ‘knowledge’ in many contexts”. See also Annas (1990, 184–185, 189).

²⁹For overviews of Stoic epistemology see Long and Sedley (1987, sections 39–42), Annas (1990) and Frede (1999). The account below essentially follows Frede’s (1987; 1999). Reed (2002b, 150n7, 153n14) suggests that Frede shifted views on whether the Stoics added their third clause as a further requirement (in Frede, 1987) or as a clarification of the first two (in Frede, 1999). We should distinguish two issues here: whether satisfying the first two clauses was supposed to *entail* satisfying the third and whether the third clause is was supposed to *clarify* of the first two. What matters for my purposes is the *entailment* issue, for if early Stoics defended an account on which “cognitions” could violate the third clause they were *not* Classical Infallibilists. Fortunately Frede answered that question positively in both works: see Frede (1987, 165) (“the Stoics think that any impression which satisfies the first two conditions will in fact also satisfy the third”) Frede (1999, 312) (“Given that the third clause is treated as merely clarificatory and redundant”). The “clarification” issue has no impact on our discussion and the account below is neutral on it.

³⁰See Frede (1987, 152–157). It is controversial whether Stoics thought that all impressions come from the senses, though that is definitely their paradigmatic case (see Brennan, 1996 for discussion). Reed (2002b, 169–70) suggests that Stoics only loosely talk of impressions as having content: strictly speaking, they are associated with one or several propositions which are themselves content (or *have* content; Reed oscillates between the two). The loose reading is enough for present purposes.

some are “cognitive”. They are characterized thus:³¹

A cognitive impression is one which arises from what is and is stamped and impressed exactly in accordance with what is, of such a kind that could not arise from what is not. (LS 40E, see also LS 40C, 40D)

Since cognitive impressions are “impressed exactly in accordance with what is”, beliefs based on them are true (Frede, 1987, 164). So they are marks of truth. Are they discernible? Arguably, that is what the third clause was meant to secure. First, Stoics took cognitive impressions to differ from others:

‘Of such a kind as could not arise from what is not’ was added by the Stoics, since the Academics did not share their view of the impossibility of finding a totally indiscernible [but false] impression. For the Stoics say that one who has the cognitive impression fastens on the objective difference of things in a craftsman-like way, since this kind of impression has a peculiarity which differentiates it from other impressions, just as horned snakes are different from others. (LS 40E)

The difference was sometimes said to be that cognitive impressions are “clear and distinct” (LS 40C). Second, Stoics thought that it is possible to assent only to impressions that are cognitive (LS 40D, 41G). Presumably, that is because a sufficiently attentive subject can tell cognitive impressions apart (Frede 1999, 314–6; as Frede points out, that may involve some training). Thus cognitive impressions are discernible.³²

Knowledge requires nothing more. It is not required that one knows, believes or is otherwise aware that one’s assent is to a cognitive impression. The unwise assent to cognitive and non-cognitive impressions alike, and yet they have knowledge (LS 40C). Nor it is required that one antecedently knows that cognitive impressions are true (Frede, 1999, 299, Barnes, 1990, 132–6).

While details remain blurry, the overall Stoic picture is clear enough. When one’s eyes are open, one is close enough and in a well-lit area, one can get an impression of an object of a kind that one could not get otherwise. When the conditions are right, one can get an impression of Socrates of a kind that one could not get from a twin. When one is wide awake, one gets impressions such that one could not get while dreaming. More generally, it is always possible to discern that one’s impression is of the cognitive kind. This does not mean that one can always tell whether an *impression* is true or false; but one can always

³¹All Hellenistic texts are cited in Long and Sedley’s (1987) translations.

³²Some texts indicate that they are also *convincing*, that is, they force assent (LS 40H, 40O). This may be what their “clarity and distinction” consists in (Frede, 1987, 168).

tell whether an impression is *of the cognitive kind* or not. And when it is, it is guaranteed to be true. Having a belief based on such an impression is all that (ordinary) knowledge requires. So, surprising as it may be to us, Stoics were committed to the claim that there are some impressions one gets when one perceives that cannot be like the ones one gets in dreams, and that there are some impressions one gets from seeing a certain man that could not be had by seeing his twin (see LS 40I, LS 40C and Frede, 1987, 162–3).

Not only Stoics thought that there was a discernible class of true impressions, but their debate with Academic sceptics was premised on the claim that *without it, there could not be any knowledge*:

Zeno defined [a cognitive impression] as an impression stamped and reproduced from something which is, exactly as it is. Arcesilaus next asked whether this was still valid if a true impression was just like a false one. At this point Zeno was sharp enough to see that *if an impression from what is were such that an impression from what is not could be just like it, there was no cognitive impression*. Arcesilaus agreed that it was right to add this to the definition, since neither a false impression nor a true one would be cognitive if the latter were just such as even a false one could be. But he applied all his force to this point of the argument, in order to show that no impression arising from something true is such that an impression arising from something false could not also be just like it. This is the one controversial issue which has lasted to the present [Cicero's times]. (LS 40D, emphasis mine)

Thus Sceptics granted—if only for the sake of argument—that knowledge required discernible marks of truth. But they denied there were any. They used the now familiar tools of the sceptical trade: fakes (a wax pomegranate, LS 40F), duplicates (two eggs or twins, LS 40H), dreams (LS 40H) and madness (LS 40H). More generally, they argued that for any particular property that was supposed to set cognitive impressions apart, a false impression could have it: Carneades claimed that a false impression could be as “striking” and “self-evident” as any true one (LS 40H).

It is worth contrasting the New Story's account with others. On one reading, sometimes called “internalist”, Stoics require that one can antecedently know *that cognitive impressions are true*.³³ That makes it puzzling why Academic Sceptics did not raise a regress issue (Frede, 1987, 167; Frede, 1999, 314).

³³See Frede (1987, 160, 167), who presents (and rejects) a traditional account on which “Stoic impressions [are] pictures or images of the world which can be looked at introspectively, with the mind's eye, as it were, to see whether they have this feature that guarantees their truth.” The statement is ambiguous between two accounts. On the first, the Stoic view is that one can introspect *whether the feature in question entails truth*. That is the “internalist” account Frede and I reject. On the

On the present account, Stoics require that it be discernible that *beliefs bear certain marks*, which are in fact marks of truth; not that it be discernible that *certain marks are marks of truth*. On another reading, called “externalist”, Stoics merely required that impressions had the right kind of causal history (Annas, 1990, 197 and Barnes, 1990, 131–6). That makes it puzzling why Stoics did not point out that fakes and duplicates fail to show that no impression has the right kind of causal history. That also makes it hard to see why they thought that it was possible to assent only to impressions that are cognitive (Reed, 2002b, 155–7). On the present account, the causal history of cognitive impressions matters only because it confers them *intrinsic* features that are discernible (Frede, 1987, 162).^{34,35}

second, the Stoics held that there is a truth-entailing feature such that one can introspect *whether impressions have it*; but there is no claim that one can introspect whether the feature is truth-entailing. That is compatible with Classical Infallibilism and not “internalist” in the sense above. Now Frede also rejects the second account because he thinks that on the Stoic view, being attuned to cognitive impressions is not a matter of introspection but of exercising one’s sensitivity to their intrinsic features (Frede, 1999, 315). However the non-introspective account is still within the bounds of Classical Infallibilism, because it is still held that a sufficiently attentive (*i.e.*, exercised) subject will be such that necessarily, they believe that a certain impression is cognitive just if it is.

³⁴A similar story can be told about another apparently externalist trend in Stoic epistemology, namely the addition of a “no-impediment” clause to the Stoic definition of basic knowledge. Under pressure from Sceptics, later Stoics added held that a cognitive impression should be “unimpeded” or “undiverted” (LS 40K). Some texts suggest that the “impediments” in question consist in the dysfunction of sense organs or an unfavourable position of the subject (LS 40L). Long and Sedley (1987, 251–252) conclude that later Stoics endorsed what amounts to a contemporary externalist position: one knows provided that when everything is functioning normally, sense impressions are truthful. This would amount to a rejection of the discernibility requirement. I doubt the reading is defensible: if Stoics had rejected it, Sceptics would have forcefully pointed it out and Cicero would have reported it. Rather, I suggest that the Stoic view was that dysfunctions of one’s sense organs would be reflected in discernible aspects of one’s experience. Indeed, several other texts suggest that the “impediments” of an impression are other impressions of the subject which indicate that the former impression is false, that is, *defeating impressions* (LS 40K, LS69E). (LS69E is about Carneades’s notion of impediment, but later Stoics adopted it.)

³⁵Reed (2002b, 167–80) defends an alternative account on which (a) early Stoics were indirect realists, (b) Academics raised problems for the view, which (c) later Stoics tried to meet by adopting a disjunctivist view. While I cannot discuss the account properly here, let me briefly indicate why I do not endorse it. First, the evidence for (a) only comes LS 40B, in which it is said that Zeno took sensations to be a compound of impressions with an act of assent. Reed (2002b, 168) comes that “in order to assent to the [impression], the subject must be aware of it”. But LS 40B does not talk of assenting *to* an impression. Moreover, it describes impressions as “a sort of blow provided from outside”, which suggests an alteration of mind rather than an image we introspect (Frede, 1999, 315). Second, Reed does not detail how Academic arguments threaten the indirect realist view. Suppose that, as Reed suggests, early Stoics took “cognitive impressions” to be images resembling what is, caused by what is. Academics point out that the same images *could* be caused by other things. From that one should infer that our impressions *could* fail to be cognitive—and further down the line, that even the wise cannot in principle avoid error entirely. But inference drawn was that none of our impressions *were* cognitive (LS 40D). Why? Third, the evidence for (c) comes from Chrysippus’ distinction between *impressions*, which are caused by an “impressor”, and *figments*, which are not (LS 53G): as in contemporary disjunctivist views, there is no common factor between impressions and delusions (Reed, 2002b, 171). But nothing indicates that the distinction was thought to be relevant to the debate with Academics: on the contrary, the discussion exclusively focus on the distinction between cognitive and non-cognitive impressions. Fourth neither of the two views ascribed to Stoics supports their claim that it is in principle possible to avoid assent to non-cognitive impressions entirely (LS 41G). The only view that does support it is the “ungrounded, and quite implausible, insistence that false impressions simply cannot be as rich and vivid as some true impressions” (Reed, 2002b, 153). That is the Classical Infallibilism I claim

Reed (2002b, 160) doubts that Stoics held the view that “false impressions could not result in the very same behaviour that cognitive impressions produce” because it is “obviously incorrect”.³⁶ Now if Stoics are Classical Infallibilists, they need not deny that some cognitive impression and some false impression have the same actual effects. But they need to deny that they would have the same effects *even if the subject was attentive enough*. Many contemporary epistemologists will that claim obviously incorrect too. But it is no more obviously incorrect than the view that it is in principle possible to avoid false belief entirely, which Stoics clearly held. In fact, as surprising as it may be, we find philosophers holding the view up until the twentieth century. Thus G.E. Moore tentatively held that some wakeful experiences are discernible:

But what I am in doubt of is whether it is logically possible that I should *both* be having all the sensory experiences and the memories I have and *yet* be dreaming. The conjunction of the proposition that I have these sense experiences and memories with the proposition that I am dreaming does seem to me to be very likely self-contradictory. (Moore, 1993, 194)³⁷

Malcolm argued that the presence of an ink-bottle in front of him was discernible:

Now could it turn out to be false that there is an ink-bottle directly in front of me on this desk ? [...] It could happen that when I next reach for this ink-bottle my hand should seem to pass through it and I should not feel the contact of any object. [...] Having admitted that these things could happen, am I compelled to admit that if they did happen then it would be proved that there is no ink-bottle here *now*? Not at all! (Malcolm, 1952, 185)

And the Oxford Realist H.A. Prichard took knowing to be discernible:³⁸

We must recognise that when we know something we either do, or by reflecting, can know that our condition is one of knowing that

they held.

³⁶Reed (2002b, 160) approvingly quotes Carneades for that claim (LS 40H, which says that false impressions are “equally self-evidence and striking”). But it seems clear to me that it was commonly granted that if Stoics conceded that claim to Carneades they were defeated. If so it would be natural to think that Stoics did hold it.

³⁷What allowed Moore to hope that the conjunction was *logically* contradictory was his Idealist view that ordinary objects were to be analysed in terms of sense-data. See section 4 on how Classical Infallibilism motivates Idealism.

³⁸See also Marion (2000a, 313) on Cook Wilson’s infallibilism. Marion (2000a, 314) claims that on Cook Wilson’s view, knowing *p* and “being under the impression” that *p* are indistinguishable. But the passage he quotes suggests that Cook Wilson took them to be distinguishable *on reflection*: “if we really thought we knew, we must have reflected and must have thought the evidence conclusive, whereas, *ex hypothesi*, any reflection shows it could not be conclusive” (my emphasis).

thing, while when we believe something, we either do or can know that our condition is one of believing and not of knowing: so that we cannot mistake belief for knowledge or vice versa. (Prichard, 1950, 88)

There is little reason to think that the incorrectness of the view should have been more obvious to the Stoics than it was to Moore, Malcolm, or Prichard.³⁹

Epicurus, head of the the other dogmatic Hellenistic school, held an even more extreme view. He took all knowledge to derive from the senses (LS 16A) and famously claimed that “all sense-impressions are true” (LS 16F). He could do so by holding a narrow conception of their content: vision only directly tells us about colours and “shape at a distance”, for instance.⁴⁰ Plausibly, he took having a sense-impression to be discernible. But unlike Stoics, he did not think it possible to discern a special class of sense-impressions.⁴¹ So claiming that all are true would have been the only way to secure the existence of discernible marks of truth. Indeed, Epicurus seems to have embraced the claim as the sole alternative to scepticism.⁴² Epicurean epistemology fits the Classical Infallibilist schema as well.⁴³

The phrase *criterion of truth* was introduced by Epicurus and adopted by subsequent schools. Epicureans said sense-impressions were the criterion; Stoics said it was cognitive impressions; Sceptics denied there was one.⁴⁴ I suggest that by *criterion of truth* they meant discernible marks of truth.

³⁹A few mitigating circumstances for the Stoics are worth mentioning. First, they may have been implicitly working with some restricted notion of possibility—say, physical possibility. Second, they may have underestimated what is possible in that sense: as salient as they are to us, sceptical scenarios involving an Evil Demon or a world created five minutes ago were not brought up until much later. Note also that Stoics are fatalists, so sceptical scenarios are possible only if actual. Third, they arguably did not think that the discernibility of cognitive impressions was a matter of a simple introspective check, but rather a matter of being sensitive to their distinctive features, which would require some training (Frede, 1999, 315).

⁴⁰Long and Sedley (1987, 84). Compare Aristotle’s *De Anima* 428b18–24.

⁴¹LS 16B: “neither can sense refute sense, because of their equal validity”.

⁴²“What is Epicurus’s principle? If any sense-perception is false, it is not possible to perceive [have cognition of] anything.” (Cicero, *Lucullus*, 32.101, trans. Everson, 1990, 161)

⁴³Unlike Cyrenaics who held that we only know about our impressions, Epicurus allowed knowledge of things beyond the immediate objects of the senses. Like Aristotle before him and the Stoics after him, his account involved the formation of “preconceptions” in the mind after repeated exposure to impressions of things. Though I cannot examine them in detail here, my contention is that these doctrines were at the very least compatible with Classical Infallibilism. See Frede (1999, 318–20) for a favourable discussion. By contrast, Everson (1990, 180) ascribes to Epicurus a fallibilist view on which inferences from sense-impressions to further facts deliver knowledge despite being “vulnerable to error”. There is no direct textual support for this view; Everson infers it from (1) the fact that Epicurus was not an external world sceptic and (2) the fact that Epicurus does not seem to have a reply to the sceptical objection that our inferences from sense-impressions are not truth-preserving. While the objection is recorded (Striker, 1977, 141), the alleged fallibilist response does not fit well with Epicurus’s strict requirement on a “criterion of truth” to “exclude falsehood” (LS 40B, see Long and Sedley, 1987, 88).

⁴⁴LS 40A. Chrysippus sometimes added “preconception”; but it is plausible preconceptions are derived from cognitive impressions in ways that make them discernible marks of truths as well. See Frede (1999, 318–20) and the previous footnote.

4 Classical Infallibilism in Western Philosophy

The New Story's bold hypothesis is that before 1950, virtually every Western philosopher was a Classical Infallibilist. The best I can aim for here is to show that it deserves serious consideration. Let me review some salient evidence.

4.1 Medieval epistemology

It is worth tracing the posterity of the Hellenistic debate through the Middle Ages.⁴⁵ Much evidence in favour of the New Story would found along the way. Some evidence against too, which we discuss below. But it is too complex a history to be explored here.⁴⁶

⁴⁵See Perler (2010), Pasnau (2010b), Lagerlund (2010) and Bolyard (2013) for good overviews—mainly focused on Western Europe—and the valuable collections of Pasnau (2002) and Klima (2007). Two issues are worth flagging. (1) *Conceptual divisions*. Medieval epistemology tends to draw on Aristotle and the Stoic-Academic debate. Both arguably distinguish ordinary knowledge from systematic theoretical knowledge, or, for short, knowledge from science (see fn. 21 above and sec. 4.8 below). In Western Europe, however, Cicero's *Academica* was barely known (Hunt, 1998, 26–30) and the main source on the Hellenistic debate is Augustine's (354–430 CE) *Contra Academicos*, which fails to heed the distinction. When Western philosophers discovered Aristotle's *Posterior Analytics* in the twelfth century their translations (e.g. Aquinas's) did use two terms, *scientia* and *cognitio*, for Aristotle's *epistēmē* and *gignoskein*. But they may understand the distinction differently: Pasnau (2002, 5–6) suggests that *cognitio* is the most general term for mental representations or thoughts. In practice medieval authors tend instead to theorize the contrast between knowledge and science in terms of *grades* of *scientia* (Pasnau, 2010b). As a result, it is sometimes hard to tell whether certain views are counterexamples to the New Story. For instance, some late medieval philosophers distinguished a lower sense of “comprehension of truth” or even “knowledge” that was just true belief (see e.g. Martens, 2011). Did they think that in its most general sense knowledge includes mere true belief? Or were they merely pointing out that “grasping the truth” is ambiguous between *knowing* proper and *having a true belief*? (2) *Conceptual innovations*. *Certainty* (*al-yaqīn*, *certitudo*) became a central epistemic category with Islamic philosophy (Black, 2006). *Evidentness* (*evidentia*) is another medieval innovation. I suspect that both can be understood in Classical Infallibilist terms, but they should be discussed in more detail. It is worth noting that medieval philosophers were almost unanimous in requiring “certainty” for knowledge. Nicholas of Autrecourt may be a rare exception (sec. 4.7 below).

⁴⁶Let me highlight three episodes. (1) *Al-Fārābī's non-accidentality clause*. Al-Fārābī (c. 872–951) calls *certitudo* the endpoint of Aristotelian demonstration. He lists six conditions for “absolute certitudo” that *p*: *S* believes *p*, *p* is true, *S* knows that *p* is true, *p* is necessary, *p* is eternal, and the previous conditions hold “essentially, not accidentally” (Black, 2006, 16). The issue here is to understand the relation between *certain knowledge*—what satisfies the six conditions—and *knowledge*—what appears in the third condition. (Black (2006, 20) points out that al-Fārābī could have used a different Arabic word for the latter but he did not. That suggests that he deliberately avoided to reproduce Aristotle's distinction between *epistēmē* and *gignoskein*.) Now al-Fārābī spelled out the “necessity” and “eternity” clauses in ways that arguably makes them not modal or temporal but rather some kind of infallibility requirement (see Black, 2006 for an enlightening discussion). If so the sixth clause suggests that *one could satisfy the knowledge clause without satisfying the infallibility ones*. That would make al-Fārābī a counterexample to the New Story. Black (2006, 29–31) however suggests the the clause is in fact superfluous. (2) *Divine illumination theories*. Relying on Cicero, Augustine's *Contra Academicos* raises the core issue of the Hellenistic debate and defends on broadly Epicurean answer (Bolyard, 2006). The Epicurean view ensures the truth of all impressions by drastically restricting their content puts a heavy load on “preconceptions” or inferences from sense-impressions. In Augustine's view these were supplied by God. Divine illumination theories dominated the early Middle Ages from Augustine through al-Ghazālī (1058–1111 CE, Kukkonen, 2010) up to Henry of Ghent (c. 1217–1293 CE). A recurrent idea is that without divine illumination we would not know much. I submit that divine illumination was taken to be necessary for there to be discernible marks of truth. (3) *The late medieval debate over scepticism*. Henry of Ghent's dis-

4.2 Easy cases: Descartes and Locke

Descartes is routinely presented as if his *Meditations* were meant to establish knowledge of the external world.⁴⁷ If so, Descartes takes himself to be the first man to discover that there are trees—or at the very least, the first one to discover that we know that there are trees. I find it hard to read him that way. Descartes is better understood by taking seriously his distinction between “cognition” (*cognitio*) and “science” (*scientia*).⁴⁸ What he takes himself to pioneer is a new science for metaphysics and other domains of theoretical enquiry.⁴⁹ Doing so requires *pretending* that we have no cognition of what can be doubted and overcoming these doubts in an orderly manner. Cognition, on the other hand, consists in a “clear and distinct perception” that something is so.⁵⁰ Descartes claims that clear and distinct perception entails truth.⁵¹ He evidently thinks that, if we are attentive enough, we will believe that we have a clear and distinct perception just if we have one. So clear and distinct perception is a discernible mark of truth. And that is all that cognition—as opposed to science—requires.⁵² So Descartes is a Classical Infallibilist about cognition. Seen in this light, Descartes’s two-tiered epistemology is remarkably close to that of the Stoics.

cussion of Academics sparked an intense debate that lasted until the arrival of the Black Death in the mid-fourteenth. The debate was fueled by a wider conception of the possible, as most philosophers agreed that God’s omnipotence was not constrained by regularities of nature. Nevertheless a first wave of philosophers defended what appears to be Classical Infallibilist answers on which, roughly, intellect is in principle always in position to correct the senses: see *e.g.* Perler, 2010, 387 and Grellard (2004, 132–3) on John Duns Scotus (c. 1265–1308) and Karger (2004) on William of Ockham (c. 1287–1347; but see Pannaccio and Piché, 2010 for a fallibilist reading). However a second wave put forward answers that seem to reject Classical Infallibilism. We return to the two most prominent examples below (sec. 4.7).

⁴⁷See *e.g.* Williams (2005, 15, 19–20), for which Descartes aims at showing how knowledge is possible and at devising a method for acquiring it.

⁴⁸In the *Second Replies*: “However, I do not deny that an atheist could know [*cognoscere*] clearly that the three angles of a triangle are equal to two right angles; I am simply affirming that his knowledge [*cognitionem*] is not true scientific knowledge [*scientiam*], since no knowledge [*cognitio*] that can be rendered doubtful seems to deserve to be called scientific knowledge [*scientia*].” (AT VII:141, trans. Ariew and Cress in Descartes, 2006, 83). Cottingham (Descartes, 1984, 101) translates *cognitio* as “awareness” and *scientia* as “knowledge”. DeRose (1992b), Sosa (1997) and Carrierio (2007) argue that the distinction between *cognitio* and *scientia* is crucial to Descartes’s avoidance of circularity in the *Meditations*.

⁴⁹See Frankfurt (1970, chap. 2), Wolterstorff (1996, 180–218), Pasnau (2013, 1000–1). The stated goal of Descartes’s meditator is “to establish [something] in the sciences” (*First Meditation*, AT VII:17). Descartes writes to Mersenne: “These six Meditations contain all the foundations of my physics.” (January 28, 1641, AT III:298). Some texts (notably the *Regulae*) suggest that Descartes thought that the scientific ideal was achieved in mathematics. But the passage of the *Second Replies* quoted above suggests that even mathematics fall short.

⁵⁰“In this first item of knowledge [*cognitionem*] there is simply a clear and distinct perception of what I am asserting” (*Third Meditation*, AT VII:35, Descartes, 1984, 24). Carrierio (2007, 306–7) takes this passage to state what cognition involves in general.

⁵¹“So I now seem to be able to lay it down as a general rule that whatever I perceive very dearly and distinctly is true” (AT VII:35, Descartes, 1984, 24).

⁵²See AT VII:141 quoted above. While I am confident that Descartes took cognition to be a widespread achievement, I leave open whether he embraced a fairly sceptical view of it, denying *e.g.* that we had any cognition of things like colours.

Locke (1975, IV, 1, §2) states that “knowledge is the perception of the agreement or disagreement of two ideas”. I suggest that “perception” is a truth-entailing and discernible state, so that Locke’s definition is an instance of Classical Infallibilism.⁵³ Evidence of this can be found in his discussion of sceptical worries. Locke held that we have “sensitive knowledge” of the existence of external things we currently perceive (Locke, 1975, IV, 2, §14, 3, §5, §21). He raised the sceptical objection that one could have the idea of something external without there being something external (Locke, 1975, IV, 2, §14). His first and main answer is that impressions originating from external things are discernible:

But yet here I think we are provided with an evidence that puts us past doubting. For I ask any one, Whether he be not invincibly conscious to himself of a different perception, when he looks on the sun by day, and thinks on it by night; when he actually tastes wormwood, or smells a rose, or only thinks on that savour or odour? We as plainly find the difference there is between any idea revived in our minds by our own memory, and actually coming into our minds by our senses, as we do between any two distinct ideas. (Locke, 1975, IV, 2, §14)

Thus Locke takes knowledge of the existence of external things to require that there is a discernible class of impressions that entail the existence of external things.⁵⁴

4.3 Open cases: Plato and Kant

The Legend takes Plato and Kant to hold the Justified True Belief view. But is it at least open whether they endorsed Classical Infallibilism instead. Plato may have endorsed the definition of knowledge as “true belief with an account”.⁵⁵

⁵³Newman (2007, 319–321) finds it surprising that Locke appears not to have endorsed the “traditional” justified true belief view, and removes the supposed anomaly by arguing that Locke did endorse it. But he makes clear that Locke’s “justification” is truth-entailing.

⁵⁴Locke’s second answer is *ad hominem*: the Sceptic should give up arguing if he thinks that he is merely dreaming that he argues. His third answer, interestingly, hints at idealism. We return to it below.

⁵⁵See mainly *Theaetetus* 202d, but also *Meno* 98a2, *Phaedo* 76b5–6, *Symposium* 202a5–9, *Republic* 534b3–7 and *Timaeus* 51b6–e6. The definition is found unsatisfactory in the *Theaetetus* 201–210. However, since Plato uses it approvingly elsewhere, one may argue that it is only the account of “account” that is unsatisfactory in the *Theaetetus*. See Fine (1979), Chappell (2009, sec 8) and Burnyeat (1990, 235–8) for some discussion. Fine (2004, 70–1) argues that Plato’s definition covers propositional knowledge, objectual knowledge, or both: the sun, virtue and Theaetetus are given as examples of things known. White (1976, 176ff), Nehamas (1984) and Kaplan (1985, 352) object to comparisons with the justified true belief analysis on that basis. See Fine (1979, 366–7; 2004, 48–9) for a rejoinder.

“Account” is usually glossed as an “explanation of why something is so”. Insofar as one cannot explain why something is so without it being so, accounts are truth-entailing.⁵⁶ It is open whether Plato took having an account to be discernible.⁵⁷ Thus it is open whether Plato’s view is an instance of Classical Infallibilism.

Kant defines knowledge as “assent [that] is both subjectively and objectively sufficient”.⁵⁸ That is spelled out in Kant’s lectures on logic as “assent based on a ground of cognition that is objectively as well as subjectively sufficient” (AA 9:70, Kant, 1992, 574). One may argue that Kant calls a ground “subjectively sufficient” just if it is discernible.⁵⁹ One may also argue that Kant calls a ground “objectively sufficient” only if it is truth-entailing.⁶⁰ Kant’s def-

⁵⁶Thanks to John Hawthorne here. Fine (2004, 67, 72) argues that Plato’s notion of “account” is demanding and that “beliefs with an account” cannot be based on any falsehood, but she leaves open whether some such beliefs are false.

⁵⁷Fine (2004, 66) tentatively suggests that Plato’s notion of account is internalist.

⁵⁸A822/B850, Kant (1998, 684). For simplicity I replace Guyer’s literal rendering of *Fürwahrhalten* as “taking something to be true” by “assent” (as does Chignell, 2007b, 35). “Assent” is broader than belief—it includes suppositions, for instance (Chignell, 2007a, 37). However, “subjectively sufficient” assent involves a degree of conviction that would make it count as belief by contemporary standards. The word for “knowledge” here is *Wissen*. Most of the *Critique of Pure Reason* is concerned with *Erkenntnis*, which Guyer translates as “cognition”. In German *Erkenntnis* is a “knowledge”-like term: it derives from the verb for objectual knowledge (*kennen*) and typically means “recognition”, “realization” or “discovery”. Hence it is tempting to identify Kant’s *Erkenntnis* / *Wissen* pair with the traditional distinction between *cognitio* and *scientia*. Thus Kemp Smith translated *Erkenntnis* as “knowledge” (see also Dicker, 2004, xii). The temptation must be resisted, however. Kant’s *Erkenntnis* includes representations that are false (A58/B83) and ideas of reason, such as the immortality of the soul, that lie beyond what can be known (A3/B6, A320/B376-77). Thus *Erkenntnis* is not plausibly understood as a notion of knowledge, ordinary or otherwise. Rather, Kant seems to use it for any mental state that can be evaluated as true or false (or more broadly, correct or incorrect) (A58/B83, A320/B376-77). *Wissen* is Kant’s notion of knowledge. So, somewhat surprisingly, the primary object of Kant’s first *Critique* is not the possibility of knowledge but the possibility of *thought*. The switch from the epistemological to the semantic is characteristic of Idealist views. Note that Kant does have a knowledge / science pair: *Wissen* / *Wissenschaft* (distinguished at A832/B860).

⁵⁹Chignell (2007b, 45) says that a ground of one’s assent is “subjectively sufficient” just if on reflection, one would cite it as one’s sufficient objective ground. Thus if *g* is a subjectively sufficient ground of your belief, then if you were attentive enough, you would believe that your belief is based on *g*. This leaves open whether, if you were attentive enough and your belief was *not* based on *g*, you could think that it was. But while Kant clearly thinks that the grounds of our judgement are not immediately transparent to us, he does seem to think that sufficient reflection would allow one to tell what they are (see e.g. AA 9:76, Kant, 1992, 579). Relatedly, Chignell (2007b, 41–2) discusses whether “grounds” are only internal psychological states or include external states as well. There is textual evidence both ways. Interestingly for us, Chignell’s conclusion is that external facts could be included insofar as they are discernible: “[...] in order to *know* something a subject must be able to cite or pick out what she takes to be her objective grounds. As long as that is possible with respect to the relevant *external* states or objects, then perhaps we can allow them to count as objective grounds as well”. This chimes in with the New Story, according to which if Classical Infallibilists assign a special epistemological role to internal states, that is because they are discernible, not because they are internal (fn. 17 above).

⁶⁰Chignell (2007b, 42) denies it. He takes objective sufficiency to consist in *sufficiently high objective probability*. That clashes with Kant’s definition of probability as “assent based on insufficient grounds” (AA 9:80, Kant, 1992, 583). As Chignell (2007b, 60n19, 61n31) concedes, Kant normally associates sufficient grounds with “certainty”. So Chignell should rather say that Kant’s “certainty” is not truth-entailing. However, Kant distinguishes “I am certain” from “the object is certain” and uses the latter for objectively sufficient grounds (A822/B850, AA 9:72). While the

inition would otherwise fail to secure the claim that knowledge entails truth.⁶¹ Nothing more is required.⁶² Thus it is at least open whether Kant's view is an instance of Classical Infallibilism. As we see below, the reading also fits well with Kant's treatment of external-world scepticism.

4.4 Idealist Dogmatism

A striking feature of Western philosophy from the eighteenth to mid-twentieth century is the predominance of Idealist views. What the New Story suggests is that Idealism was an attempt to rescue Dogmatism in a Classical Infallibilist framework. For a variety of reasons, sceptical arguments came to the fore again in modern times. Philosophers increasingly doubted that there were any discernible class of true sense-impressions. The natural conclusion for Classical Infallibilists is Scepticism—and many embraced it, as we will see. However, impressions were taken to be discernible marks at least *of their own presence*. Thus if ordinary objects—trees, horses and the like—were made out of impressions, then perhaps we had discernible mark of truths for our ordinary beliefs after all. Thus the epistemological troubles of Classical Infallibilism motivated the revisionary metaphysics of Idealism.

personal construction is compatible with falsehood, the impersonal one is not: “it is not raining and it is certain that it rains” is contradictory. If Kant departed from ordinary and philosophical usage so much as to call objectively “certain” things that are false it is surprising that he never mentioned it. Now Chignell's (2007b, 42) claim that Kant's objectively sufficient grounds are not truth-entailing rests on two passages of Kant's lectures on logic in which it is said that when one's grounds are objectively sufficient, there may still be grounds for the opposite (AA 9:72, Kant, 1992, 576; AA 24:160, Kant, 1992, 126). But the fact that sufficient grounds may coexist with grounds for the opposite does not entail that there are sufficient objective grounds for false claims. Like Descartes, Kant may have thought that having a discernible mark of truth for something is compatible with having (insufficient) grounds for doubting it. Note in particular that a ground's being truth-entailing and discernible does *not* entail that it is discernible or antecedently known that the ground is truth-entailing. Thus a subject with objectively sufficient grounds may doubt that they are objectively sufficient. A further discussion of these issues would require a close examination of Kant's discussion of doubt, how it is removed, and how to ascertain whether one's grounds of assent are objective or subjective (e.g. AA: 9:83, 9:73). For present purposes it is enough to show that a Classical Infallibilist reading of Kant is a live option.

⁶¹Thus Chignell (2007a, 330), denying that objective sufficiency is truth-entailing, supplements the definition with a truth clause and suggests that Kant, “operating in the Platonic tradition”, has left it implicit. The New Story casts doubt on the existence of such a tradition. While in the *Critique* Kant is admittedly brief on knowledge and related concepts (“I will not pause for the exposition of such readily grasped concepts”, A822/B850), it is worth noting that his much more detailed lectures on logic give the very same definition, without truth clause (quoted above). Earlier lectures (Blomberg's notes) give the following instead: “To know is to judge something and hold it to be true with certainty.” (AA 24:148). Again, no truth clause is added. The textbook Kant was relying on (G.F. Meier's *Excerpt from the Doctrine of Reason*, §§155-167) does not provide the alleged implicit clause either—it does not define *Wissen* at all. If so it would be peculiar for Kant to leave his students in the dark about it.

⁶²In particular, as Chignell (2007b, 49) stresses, “some of the facts on which an assent's objective sufficiency supervenes—and in particular facts about its objective probability—will typically be inaccessible to a normal subject.” Knowledge requires an objectively sufficient ground, not that it be discernible or antecedently known that that ground is objectively sufficient. That fits with the Classical Infallibilist picture, on which knowledge requires discernible marks that are in fact truth-entailing, not that one discerns or antecedently knows that the marks are truth-entailing.

Locke flirted with Idealism in his reply to scepticism. In case his main answer was not granted he proposed an alternative. Even if what he calls “fire” turns out to be an idea in him, it is no less a cause (or temporal predecessor) of pain, and knowing that is all that matters.⁶³ The assumption is that even if he lacks discernible marks of truth about the existence of fire, he has at least discernible marks of truths for the existence of *sensations* of fire and what follows from them. For—his thought may be—the sensations play the role of discernible marks of their own presence. The further step, taken by Berkeley and subsequent Idealists, was to claim that “fire” in fact refers to these sensations.⁶⁴ Thus we may hope to have discernible marks of the presence of fire after all.

The Classical Infallibilist motivation is evident in Berkeley and Kant. Berkeley grants the sceptical claim that we have no discernible mark of truths for the existence of unperceived bodies.⁶⁵ In line with Classical Infallibilism, he concludes that we do not know that there are such things. He claims, however, that we do know our ideas and what they necessary entail.⁶⁶ He avoids outright scepticism by claiming that ordinary things like apples are collections of ideas.⁶⁷

Kant’s “refutation of Idealism” (B274–9) is meant to show that the existence of things in space is entailed by our “inner experience”. As with Descartes, I doubt that Kant thought that nobody knew that there were things in space before they had such a proof. But Kant plausibly took the *conclusion* of the proof—the alleged entailment—to be a requirement on our having knowledge

⁶³Locke (1975, IV, 2, §14): “But yet if [one who argues that a dream may produce the same idea] be resolved to appear so sceptical as to maintain, that what I call being actually in the fire is nothing but a dream; and that we cannot thereby certainly know, that any such thing as fire actually exists without us: I answer, That we certainly finding that pleasure or pain follows upon the application of certain objects to us, whose existence we perceive, or dream that we perceive, by our senses; this certainty is as great as our happiness or misery, beyond which we have no concernment to know or to be.” The reply is pragmatic rather than Idealist.

⁶⁴See Berkeley (57, §1) “Thus, for example a certain colour, taste, smell, figure and consistence having been observed to go together, are accounted one distinct thing, signified by the name *apple*. Other collections of ideas constitute a stone, a tree, a book, and the like sensible things—which as they are pleasing or disagreeable excite the passions of love, hatred, joy, grief, and so forth.”

⁶⁵Berkeley (57, §18): “But what reason can induce us to believe the existence of bodies without the mind, from what we perceive, since the very patrons of Matter themselves do not pretend there is *any necessary connexion betwixt them and our ideas*? I say it is granted on all hands (and what happens in dreams, phrensies, and the like, puts it beyond dispute) that *it is possible we might be affected with all the ideas we have now, though there were no bodies existing without resembling them*”.

⁶⁶See Berkeley (57, §18): “Either we must know [the existence of unperceived bodies] by sense or by reason. As for our senses, by them we have the knowledge ONLY OF OUR SENSATIONS, ideas, or those things that are immediately perceived by sense, call them what you will: but they do not inform us that things exist without the mind, or unperceived, like to those which are perceived.” The rest of the paragraph, quoted above, shows that Berkeley assumes that something is known by reason only if it is entailed by the existence of our ideas. Berkeley takes this to include the immortality of souls, the existence of other minds and the existence of God.

⁶⁷See e.g. Berkeley (57, §1), quoted fn. 64 above.

of things in space.⁶⁸ If the proof is successful, then our “inner experience”—which he presumably takes to be discernible—is a mark of the existence of things in space. In order to secure it, however, Kant claims that that “things in space” are just sensations with a spatial “form”.⁶⁹

The Infallibilist motivation of Idealism—and its later cousin, Verificationism—could be followed up to the mid-twentieth century. For instance, what allows Moore to hope that wakeful experiences are “logically incompatible” with dreaming is his project of reducing ordinary objects to sense-data. Here we will simply note a final sign of that motivation: the almost complete disappearance of Idealism after the fall Classical Infallibilism.

4.5 Probabilist Scepticism

Throughout history we find philosophers who acknowledge the lack of discernible marks of truth while overtly rejecting Scepticism. They are not counterexamples to the New Story. They are Probabilist Sceptics. Their view has Hellenistic origins as well.

In reply to the Dogmatic objection that life without assent is impossible, Carneades—at least dialectically—argued that one could be guided by *convincing* impressions. Translated by Cicero as *probabile* (“acceptable”, “that can be approved”), the notion was destined to have lasting influence. It is worth quoting the passage that sets it out in full:

Of the apparently true impressions, one kind is dim, *e.g.* in the case of those whose apprehension of something is confused and not distinct, owing to the smallness of the thing observed or the length of distance or even the weakness of their vision; the other kind, along with appearing true, is additionally characterised by the intensity of its appearing true. [...] the impression which appears true and fully manifests itself is the criterion of truth according to Carneades and his followers. As the criterion, it has a considerable breadth, and by admitting of degrees, it includes some impressions which are more convincing and striking in their form than others. [...]

⁶⁸Kant says that the Idealist’s claim is that the existence of things outside us is “doubtful” or “false” (B274). Since he takes knowledge to require certainty (A822/B850) and (arguably) truth, he takes the Idealist view to entail that we lack knowledge of things in space. Hence he takes the Idealist view to deny that we satisfy some necessary condition on knowledge, and he plausibly takes the conclusion of his refutation to state that we do satisfy that condition.

⁶⁹Kant undoubtedly took his view to allow a distinction between *subjective* space, in which sensations are received, and *objective* space, in which the “understanding” somehow locates them. What is important to him—and what he takes to distinguish him from Berkeley—is that his *Refutation* proves the existence of things in *objective* space. But he takes objective space to be somehow a “form” of our sensations as well. Kant’s doctrine is intricate; what matters for our purposes is only that he assumed that knowledge of things in space had to satisfy Classical Infallibilist standards, which is plausibly one of the motivations for his brand of Idealism.

Hence the criterion will be the impression which appears true—also called ‘convincing’ by the Academics—but there are times when it actually turns out false, so that it is necessary actually to use the impression which is common on occasion to truth and falsehood. Yet the rare occurrence of this one, I mean the impression which counterfeits the truth [i.e., the second], is not a reason for distrusting the impression [i.e. the third] which tells the truth for the most part. For both judgements and actions, as it turns out, are regulated by what holds for the most part. (LS 69D)

Convincing impressions are discernible: they contrast with “confused” and “indistinct” ones, they have an “intensity of appearing true” and they “manifest themselves”. But they are not truth-entailing. They are merely reliable: they are true “for the most part”—that is, only most of them are true. Both dimensions admit of degrees. We may call *indication of truth* a property of a belief such that most beliefs who have it are true. Carneades’s suggestion is that action could be guided by a *discernible indication of truth*.

Importantly, Carneades did *not* think that indications of truth (perhaps in conjunction with truth) are enough for knowledge (e.g. LS 69F). Thus he did not challenge Classical Infallibilism. Rather, he targeted the Stoics’ assumption that one should act only on the basis of what one knows.⁷⁰ His successor Philo of Larissa appears to have taken a step further and targeted the widely shared Hellenistic view that one should *believe* only what one knows.⁷¹ He held that convincing impressions would justify some form of assent, *opinion*.⁷²

Carneades’s *convincing* is of course not the modern quantified notion of probability. But its core features are those later philosophers commonly asso-

⁷⁰See LS 69A. The Stoic assumption has been revived in the contemporary context by Unger (1975, chap. 5). Burnyeat (n.pub) argues that Carneades’s rejoinder to Stoics is not that convincing impressions *justify* actions, but rather than their fallibility *fails to justify* suspension.

⁷¹Before Philo, and even after him, few challenged Sceptics on the idea that if nothing was known, nothing should be “assented” to. Moreover, I suspect that even within the post-Philo tradition it was held that there is a kind of “assent” (typically, subjective certainty) reserved to what was known. The idea that beliefs of any type can be equally justified when one knows as when one does not is a contemporary one. In recent years the traditional view that one should believe only what one knows has been revived by Unger (1975, chap. 5), Williamson (2000, 47; 2007), Sutton (2007), Haddock (2010), Littlejohn (2014).

⁷²“[...] the wise man will assent to what is incognitive, i.e. will opine, but in such a way that he realizes that he is opining and knows that there is nothing which can be grasped and cognized.” (LS 69K) That is the (looser) sense in which convincing impressions are said to be “criteria of truth” above. Philo (via his main pupil Antiochus, whose lectures Cicero attended) is one of our main sources and he was keen to present his own views as continuous with those of Carneades. Thus while some texts say that Carneades called convincing impressions “criteria of truths” and allowed forming opinion on their basis, a number of commentators think that Carneades restricted them to action-guidance, did not call them “criteria” and only put forward the view dialectically, as a way to show that lack of knowledge did not entail that no action was justified (Long and Sedley, 448–9 and Schofield, 1999, 334–8). At any rate, it is clear enough that Philo did relax Academic Scepticism enough to allow the formation of “probable” opinions. See Long and Sedley (1987, 455–60) and Schofield (1999) for further discussion.

ciate with epistemic notions of the “probable”. First, it somehow invites assent: it makes something “appear true”. Second, it is discernible. On Carneades’s view the two are conjoined: the convincing is discernible because it is a certain way of appearing true. Third, it is not truth-entailing but it is reliable. Fourth, it comes in degrees. These features can be found in later notions of “probability”, sometimes—but not always—spelled out in terms of mathematical probability.⁷³ Thus “Probabilism” is not a wholly bad name for a view inspired by Carneades.⁷⁴ The same features may be found in the contemporary internalist notion of (epistemic) “justification”, when that term is used to denote not simply the normative status of *being justified* but some discernible indication of truth in virtue of which a belief has that status (“one’s reasons”, “grounds” or “evidence”).

Philosophers who adopt Carneades’s “criterion” may emphatically deny that they are Sceptics because they deny *that we ought to suspend judgement*. But they are Sceptics in the sense of denying *that we know*. Locke is a prime example. He distinguishes the *certain*, which is the province of knowledge, from the merely *probable*, which falls short of knowledge.⁷⁵ The scope of the former is severely limited: ideas and conceptual truths, the existence of God and the existence of particular things that we currently perceive.⁷⁶ In the latter, however, opinion is allowed. As with Carneades, “probability” is defined in terms of discernible indication of truth—though Locke hesitates on whether the indication’s reliability should be real or apparent.⁷⁷ Probabilist Scepticism is also manifest in the first philosophers to call themselves “fallibilists”, namely Pierce and Popper.⁷⁸

⁷³See e.g. Kant (AA 9:82) who insists that not all probability can be given a mathematical representation.

⁷⁴See Burnyeat (npub) and Schofield (1999, 350) for discussion. It is potentially misleading to call Carneades himself a “probabilist” because (a) he puts a view forward dialectically, but does endorse it and (b) the view he puts forward is not *we ought to follow chances*, but rather *there is no reason not to*. But Philo turned Carneades’s view into a non-dialectical, normative one. In a landmark study Hacking (1975, 18–38) argued that pre-modern notions of “probability” lacked the dimension of evidential support. The claim has since been overturned; see Franklin (2001, 373).

⁷⁵Locke (1975 IV, 3 §14): “the highest probability amounts not to certainty, without which there can be no true knowledge”.

⁷⁶Locke (1975, IV, 3, §1, §5, §9–14, §21); “our ignorance is great” (§22).

⁷⁷Locke, 1975, IV, 15, §1: “probability is nothing but the appearance of such an agreement or disagreement [between two ideas] by the intervention of proofs, whose connexion is not constant and immutable, or at least is not perceived to be so, but is, or appears for the most part to be so, and is enough to induce the mind to judge the proposition to be true or false, rather than the contrary.” The text leaves open whether probability involves a connexion that “is” or “appears” for the most part to be so.

⁷⁸Peirce introduced the term “fallibilism” and defined it as the doctrine “that we can never be sure of anything” or “that we cannot attain absolute certainty concerning matters of fact” (Peirce, 1950, 58–9). He took that to involve the rejection of the aim of knowledge: “there will remain over no relic of the good old tenth-century infallibilism, except that of the infallible scientists, under which head I include [...] all those respectable and cultivated persons who, having acquired their notions of science from reading, and not from research, have the idea that “science” means knowledge, while the truth is, it is a misnomer applied to the pursuit of those who are devoured

4.6 Induction and Infallibilism

Surely, one may think, historical philosophers were aware that most ordinary beliefs are based on inductive inference. So, if Classical Infallibilism is true, then historical philosophers must have been either widely sceptical or strangely convinced that inductive inference was infallible. But both seem absurd.

As surprising as it may seem to contemporary epistemologists, that is exactly what we find. Many philosophers had an extremely restricted view of what we know, excluding *e.g.* knowledge of the future, or knowledge acquired by testimony, or almost all perceptual knowledge. Locke is a case in point. Others had infallibilist views about inductive inference. I think that could be argued about Ancient and Medieval accounts of inductive inference in terms of the acquisition of “pre-notions” (either by observation or divine illumination). But I will simply mention one striking modern instance. In his *System of Logic*, Book 3, Mill aims at giving conditions for “correct” induction. He writes:

“Some [inductions], we know, which were believed for centuries to be correct, were nevertheless incorrect. That all swans are white, cannot have been a good induction, since the conclusion has turned out erroneous.”

By contraposition, if an induction is “good”, its conclusion is not erroneous. Undoubtedly, Mill thought that the validity of induction depended on an objective, substantial feature of our world: its “uniformity”. And unlike Kant, it did not think that the uniformity of the world was somehow demonstrable. But he appeared to think that, given that uniformity, some inductive methods are truth-entailing.

4.7 Hard cases: Autrecourt, Buridan, Reid, Ramsey

Nicholas of Autrecourt (c. 1295–1369) famously argued that the scope of the “evident” is restricted to what cannot logically be false: analytical claims and maybe a restricted class of impressions.⁷⁹ His arguments are consistent with a

by a desire to find things out” (Peirce, 1950, 3). Popper (1972, 228) calls himself “fallibilist” as well. He does talk about “scientific knowledge”, which he claims to be in continuity with ordinary knowledge and to be the object of traditional epistemology—Plato, Descartes, Locke, Hume, Mill and Russell (Popper, 1959/2002, xxi–ii). However, he allows “knowledge” to be falsified, hence false. Whether or not that is a legitimate extension of “know”, it is closer to Carneades’s notion of probable opinion than to historical and contemporary notions of knowledge.

⁷⁹On Autrecourt’s epistemology see Zupko (1993, 193–5), Thijssen (2000) and Grellard (2005, 2010). In his *First Letter to Bernard of Arezzo* he argues that *if*, as Arezzo contains, impressions are distinct from their objects, then “every impression we have of the existence of objects outside of our minds can be false” (3, Klima, 2007, 134). However in his *Exigit ordo* he claims that “apparences (in the strict sense) are not [false]” and he takes wakeful appearances to be “different in kind” from ones in dreams (see Grellard, 2010, 130–1). So his claim that every impression can be false may have been conditional on premisses he rejected.

Classical Infallibilist account of the “evident”. However, he appeared to have also held that knowledge extends beyond the “evident” to the “probable”.⁸⁰ In doing so, he appears to reject Classical Infallibilism. He would thus be a counterexample to the bold hypothesis. It is worth noting, however, that his views were widely taken to entail skepticism, because it was widely assumed that knowledge required “evidentness”. That is consistent with the hypothesis that most of his contemporaries endorsed Classical Infallibilism.

John Buridan (c. 1295–1363) was one of those who thought that Autrecourt’s arguments would lead to scepticism. However his own epistemology has a fallibilist flavour too.⁸¹ There are two reasons for this. First, he allows a standard of “evidentness” that is not truth-entailing but sufficient for moral conduct. His example is that of a magistrate who, after diligent investigation, “acts well and meritoriously” in hanging an innocent. The notion prefigures that of “moral certainty” and the legal standard of “beyond reasonable doubt”.⁸² Unfortunately, it is not clear whether he counts that type of “evidentness” as a “certainty” and as sufficient for knowledge.⁸³ He may be a Probabilistic Sceptic on moral affairs. Second, Buridan grants that God could make any sense-impression false but allows knowledge on the basis of “evidentness” that entails the truth *conditional on nature following its course*.⁸⁴ Now if Buridan takes

⁸⁰See Grellard (2010, 132–6).

⁸¹See Zupko (1993), Klima (2009, 237–45), Pasnau (2010a, 30–7), Karger (2010, 221–3). Buridan’s discussion is framed in terms of *scientia* but it covers ordinary knowledge, e.g. knowing that Socrates is running or that the sun is bright (*Summulae de Dialectica*, bk. 8, ch. 4, sec. 4, Klima, 2007, 146).

⁸²*Quaestiones in Aristotelis Metaphysicam*, Bk. 2 q. 1, trans. Klima (2007, 146): “there is an even weaker kind of evidentness that suffices for acting morally well, namely, when someone, having seen and investigated all relevant facts and circumstances that man can diligently investigate, makes a judgement in accordance with these circumstances, then his judgement will be evident with the sort of evidentness that suffices for acting morally well, even if the judgement is false, because of some insurmountable ignorance of some circumstance. For example, it would be possible for a magistrate to act well and meritoriously in hanging a holy man because from testimonies and other legal evidence it sufficiently appeared to him concerning this good man that he was an evil murderer.” See (Pasnau, 2010a, 33 and n12) on the legacy of the notion.

⁸³Pasnau (2010a, 36) argues that the question would be irrelevant to Buridan and scholastic philosophers: “the question of whether it is certain enough to count as knowledge is not the scholastic question. For them, as I have been stressing, epistemic states occur along a continuum without sharp breaks, and there is accordingly little point in worrying about whether a given context is now so far from the ideal that it should no longer count as *scientia*.” I agree with much of Pasnau’s picture (see below) but not with that part. Buridan’s scale of epistemic states is not a continuum. It has well-defined cut-off points: the supernaturally unfalsifiable, the naturally unfalsifiable, the naturally falsifiable. He also takes seriously the question how far *scientia* applies: he insists that when he sees Socrates running, it is *correct* to say that he knows, and not merely opines, that Socrates is running (*Summulae de Dialectica*, bk. 8, ch. 4, sec. 4, Klima, 2007, 149). Moreover, he stresses a sharp difference between knowledge and opinion: the former requires truth, the second does not. Since he took the “moral” kind of evidentness to be compatible with falsehood, the issue whether it could yield something properly called “knowledge” would have been worth raising. I suspect he did not do so because he thought the answer was obviously negative.

⁸⁴*Summulae de Dialectica*, bk. 8, ch. 4, sec. 4: “Another [type of evidentness] is such that in accordance with it the cognitive power is compelled either by its own nature [or by some evident argument] to assent to a truth or a true proposition that cannot be falsified naturally, although it could be falsified supernaturally. And this is what is required for natural science.” (Klima, 2007,

natural necessity to entail truth, that is a variant of Classical Infallibilism with a restricted notion of necessity. If, however, natural necessity does not entail truth—because miracles happen—then he is indeed rejecting Classical Infallibilism. One could even argue that he endorses a version of the Justified True Belief analysis.⁸⁵ Note, however, that even on that reading Buridan's view is close to Dogmatic Classical Infallibilism. For he appears to think that, supernatural scenarios aside, it is always possible to tell on reflection whether one's senses are deceived.⁸⁶

Reid is commonly taken to defend a "fallibilist" conception of knowledge, for he allows knowledge of external objects through perception unaided by reason even while recognising that perception is fallible.⁸⁷ A detailed discussion of Reid is more than I can offer here. But I would like to stress three points that are crucial in assessing whether Reid is a counterexample to the New Story. First, we should distinguish *source infallibilism* from *Classical Infallibilism*. Our paradigm Infallibilists, Stoics, were "fallibilists" in a sense: unlike Epicurus, they granted that senses are fallible. Thus like Reid, they "did not require that sources of knowledge be infallible" (Greco, 1995, 294). But they were Classical Infallibilists, because they thought that these sources provide us with knowledge only when they provide us with a discernible mark of truth. Thus we should ask whether Reid thought it possible for a belief to constitute knowledge without any of its discernible features entailing its truth. Second, as with the Stoics, it is important to recall that discernibility does not require that one can introspect one's impressions; it merely requires that a sufficiently attentive subject believes that they have an impression of the right kind just when they

149). The context indicates that "cannot be falsified naturally" here qualifies the assent, not merely the proposition. (Previous paragraphs apply the supernaturally vs. naturally falsifiable distinction to "certainty on the part of the proposition", i.e. truth and necessity; this paragraph analogously extend the distinction to "evidentness". See Klima, 2009, 244 who reads the passage as concerning the reliability of our cognitive faculties.)

⁸⁵To see this we need to unpack Buridan's idiosyncratic terminology. He takes "certainty" to involve two things, one on the side of the proposition, one on the side of the subject. The former is said to be "firmness of truth" (metaphysical or natural necessity) in *Quaestiones in Aristotelis Metaphysicam*, Bk. 2 q. 1 (Klima, 2007, 145) but simply "truth" in the *Summulae de Dialectica*, bk. 8, ch. 4, sec. 4 (Klima, 2007, 147). The latter is "firmness of assent", which we would call subjective certainty. Firm assent further divides into that without "evidentness" (orthodox faith, the wilful errors of heretics, belief based on sophisms) and that "with evidentness". Now in *Summulae de Dialectica*, *ibid.*, Buridan defines knowledge as "assent with certainty and evidentness" (Klima, 2007, 146). Given the foregoing that is equivalent to: firm assent (i.e., belief) that is true and with evidentness. If evidentness is discernible but does not entail truth that is a version of the Justified True Belief view. See Karger (2010, 221–3) for a comparable reading.

⁸⁶"In response to [the argument about the deceptiveness of the senses] I say that if the senses are naturally deceived, then the intellect has to investigate whether there are people there or not, and it has to correct the judgements of illusion" (*Questions on Metaphysics*, Bk. 2 q. 1, Klima, 2007, 146). See however Zupko (1993, 210) for a weaker reading of Buridan's claim that the intellect has the power to correct the error of the senses.

⁸⁷Greco (1995, 294). However, Sosa (2009, 61) takes some of Reid's principles to be infallibilist. He takes them to be false and discusses a revised, fallibilist reading of Reid's view.

do.⁸⁸ Thus Reid may both reject the Lockean Doctrine of Ideas and yet take sense-impressions to be discernible. Third, as with Mill and Buridan, it is crucial to ask whether Reid is operating with a restricted notion of necessity. He may merely be requiring that given laws of nature, suitable sense-impressions entail their truth.

An indisputable counterexample to the hypothesis is Ramsey (1931). Ramsey takes inductive inference to be a source of knowledge and he clearly acknowledges that it is not truth-preserving but merely “reliable”, that is, it only leads to true opinion “on the whole”. There is no indication that, like Mill, he takes some discernible subclass of inductive inferences to be truth-preserving. Hence he rejects Classical Infallibilism. Significantly, however, Ramsey’s brilliant anticipation had little influence in its time.

4.8 Alternatives to the New Story

Two other broad pictures of the history of epistemology have been recently defended. Antognazza (2015, 167–71) also argues that the Justified True Belief analysis is a twentieth century invention and that there is nevertheless a traditional conception of knowledge. On her view the tradition takes knowledge to be “a primitive perception or an irreducible mental ‘seeing’ what is the case; [...] a primitive presence of a fact to the mind (or to the senses) in which there is no ‘gap’ between knower and known” (169). The state in question is incompatible with, and irreducible to, belief. But it involves “thinking with assent” (*assent*, for short), a *genus* of which knowledge and belief are species. Since presence of the fact that *p* entails that *p* is so, *being made in presence of the fact to the mind* is a truth-entailing property of assents. So as in the New Story, tradition says that knowing entails being in some acceptance-like state with a truth-entailing property. Her picture differs on three counts, however. First, the acceptance-like state is assent rather than belief. It is not clear to me whether the difference is more than verbal.⁸⁹ Second, the property in question is “being made in presence of the fact to the mind”. It is not clear to me whether that is incompatible with knowledge of the future, the distant or the past. Third, she leaves open whether the presence of a fact to the mind is discernible in my sense. If it is not it is not clear why past philosophers were worried about dreams, fakes and the like. If, for instance, the presence of a fact to the mind simply consisted in assent *caused by* the corresponding fact, dreams

⁸⁸See fns. 33 and 39 above.

⁸⁹Supplement Classical Infallibilism with *opinion*, defined as belief that lacks a discernible mark of truth. “Opinion” and knowledge are species of “belief” in Classical Infallibilism just as “belief” and knowledge are species of “assent” in Antognazza’s view of the traditional conception.

and the like would do nothing to show that no facts are present to the mind.⁹⁰

Pasnau's (2010b; 2010a; 2013) picture is that traditional and contemporary epistemology pursue different projects. With the possible exception of Plato, Western philosophers were not interested in providing an analysis of knowledge. They were interested in more specific cognitive phenomena such as perception or imagination (Pasnau, 2013, 990). But more importantly, they were interested in setting out an epistemic ideal: the best knowledge-like state humans could aspire to (Pasnau, 2013, 994). Aristotle and Descartes are offered as illustration: Aristotle's *epistēmē* and Descartes's *scientia* are ideals for human theoretical achievement, not accounts of ordinary knowledge (Pasnau, 2013, 990–6; Pasnau, 2013, 1000–1). Ideal-theoretic epistemology emphasizes a scale of distance from the ideal and the question of which grade is suitable for what purposes, rather than the putative threshold between knowledge and non-knowledge and the question whether we cross it. The idea is illustrated by grades of certainty in medieval epistemology (Pasnau, 2010a, 36; 2013, 1014–15).

Pasnau's central insight seems to me correct: many historical philosophers are better understood as laying out an ideal for systematic theoretical inquiry. Indeed, that is essential secure the New Story's claim that philosophers took knowledge to require *nothing more* than discernible marks of truth—for Descartes's *scientia*, for instance, does require more than a discernible mark of truth. However, Pasnau's picture seems to me partial in three ways. First, it omits *intense debates over whether we know*. What Stoics and Sceptics mainly argued about was not what the epistemic ideal was or whether it was reachable but whether we *knew* anything.⁹¹ Indeed, Pasnau (2013, 1015) points out that ideal-theoretic epistemology makes sceptical worries much less pressing than knowledge-centred epistemology does. Thus his picture makes it puzzling that sceptical views were taken much more seriously in history than they are now.⁹² The New Story, by contrast, explains it by ascribing historical philosophers a

⁹⁰See sec. 5 below on the Crude Causal theory. Now dreams and the like are cases of assent in the absence of fact. So the *metaphysical* possibility of dreams would establish the metaphysical possibility of assent without knowing. But that is something that Dogmatists happily grant. The *epistemic* possibility of dreams would show that it is *epistemically possible* that we do not know. If epistemic possibility entails lack of knowledge then we do not know *whether we know*. So Crude Causal theorists would at most take dreams and the like to undermine *second-order* knowledge. Even then, they may quickly dispell the worry by applying their theory at higher order. Dreams and the like do nothing to show that no assent *that one knows* is caused by the corresponding fact.

⁹¹Examples could be multiplied. When late medieval authors debated over “whether, when I clearly see Socrates running, I know that he is running or I merely opine this” (Buridan, *Summulae de Dialectica*, bk. 8, ch. 4, sec. 4, Klima, 2007, 149), there were not discussing whether such cases satisfy the ideal requirements of Aristotelian science. When Berkeley argues that we cannot have knowledge of unperceived bodies, he is not merely denying that we lack an ideal theoretical discipline for them.

⁹²As Pasnau (2013, 1015n45) reports, the 2009 *Philpapers* survey suggests that a mere 3% of philosophy professors lean toward external-world scepticism.

view that does lead to scepticism. Second, the picture omits the fact that *the epistemic ideal was typically defined in terms of knowledge*. Aristotle defines science (or understanding, *epistēmē*) as *knowledge (gignōskein)* of why something is so and could not be otherwise than it is.⁹³ Stoics define science (*epistēmē*) as body of knowledge (cognition, *katalēpsis*) rich enough to withstand objections. Descartes defines *science (scientia)* in terms of clear and distinct perception, which is his account of (basic) knowledge (*cognitio*).⁹⁴ Far from defining the ordinary notion of knowledge as a lesser form of the epistemic ideal, these philosophers defined the epistemic ideal in terms of knowledge. Third, it omits the fact that many historical philosophers *had a theory of knowledge*. We have seen that the Stoics had one and we have reviewed evidence for a similar theory across history. Granted, Pasnau is right that there was little discussion of what knowledge *is*—especially in comparison to how much they debated the proper form and method of science and whether we knew anything. But that is not so surprising if, as the New Story holds, they widely agreed over what knowledge is. The question became a topic of debate only when Classical Infallibilism collapsed.

4.9 Guidelines for a history of epistemology

The New Story’s bold hypothesis is worth exploring further. Here are some guidelines for doing so. First, one should ask whether a candidate notion is that of *knowledge*. Kant’s *Erkenntnis* is less; Descartes’s *scientia* is more.⁹⁵ Useful clues are whether the notion entails truth and whether it is what we *prima facie* seem to have in some paradigmatic cases—“when I clearly see Socrates running”, to take Buridan’s example. Second, one should ask whether knowledge is taken to require some truth-entailing property in addition to truth itself. A useful clue is whether truth figures as an independent condition. Third, one should ask whether the property in question is required to be discernible. Clues can be found in claims that error can be avoided and in the treatment of sceptical scenarios. Fourth, one should carefully distinguish the requirement of having a discernible mark of truth from that of antecedently knowing that a mark is a mark of truth. The fact that a philosopher rejects the latter is not sufficient to show that they are “fallibilist” or “externalist” in the contemporary sense. Fifth, one should be careful in interpreting a philosopher’s insistence on the proper functioning of faculties or on nature following its normal course. Again, these are not indications that they are “fallibilist” or “externalist” in the contemporary sense, for they may have taken proper functioning to deliver

⁹³*Posterior Analytics*, 71b10. See Barnes (1993, 89–92).

⁹⁴See DeRose (1992b, sec. B) for a proposal along these lines.

⁹⁵On Kant see fn. 58 above.

discernible marks of truth, or they may have been operating with a restricted notion of necessity. Finally, one should not assume that it was obvious to past philosophers that no discernible property of beliefs is truth-entailing.

5 The fall of Classical Infallibilism

Classical Infallibilism does not face standard Gettier-style counterexamples. In standard Gettier-style counterexamples it is clear that whatever is discernible to the subject fails to entail truth; so Classical Infallibilists would have no trouble in denying that the subject knows (see sec. 1 above). If Classical Infallibilists face Gettier counterexamples, they are of a more subtle and controversial kind (Williamson, 2013). Suppose that clearly perceiving is discernible and truth-entailing. Still, there will plausibly be a series of barely different cases ranging from clear to non-clear perception. If the first non-clear perception case in one such series is one of error, then the last clear case is arguably not one of knowledge—for it is one in which could easily have been mistaken. Thus the truth-entailing condition is too weak; one should require a property that ensures truth at closes cases as well. Be that as it may, that kind of case is subtle and controversial enough for it not to be surprising that it was not raised by past philosophers. Thus the New Story explains why the Gettier problem was not raised earlier.

Classical Infallibilism does lead to Scepticism, however. Few, if any, of our beliefs bear discernible marks of truth. That is so even on extreme restrictions of necessity and Idealist reconstructions. If our beliefs are wholly about sense-data, past experiences still fail to entail future ones, so we do not have discernible marks of the unobserved. If we restrict the possible to the actual, a property of a belief is discernible only if for all beliefs that have it, one actually believes that they have it. Thus only extremely reflective subjects know anything. Moreover, if marks are grouped into fairly broad kinds (see sec. 2), so that, for instance, *having a clear visual impression that p* counts as truth-entailing only if in general *having a clear visual impression* is truth-entailing, few marks will be truth-entailing. For in actuality alone some people have had clear visual impressions of something false.

The stark implications of Classical Infallibilism are visible in two influential books of the first half of the twentieth century. C.I. Lewis (1929) holds that we have a wealth of empirical knowledge. But to do so, he holds that whenever *p* is empirical, by “knowing *p*” we strictly mean “knowing *that it is probable that p*”, which does not even entail the truth of *p* (Lewis, 1929, 324–325), and he understands “it is probable that *p*” in a such a way that it can be entailed

by one's sense-data (Lewis, 1929, 331). Hence Lewis embraces a probability-based Idealist reconstruction in order to rescue Dogmatism. Ayer (1936/1990, 19) in effect denies that anything other than tautologies is known: "Indeed, it will be our contention that no proposition, other than a tautology, can possibly be anything more than a probable hypothesis." He embraces Probabilist Scepticism.⁹⁶

After the second world war, it was clear among analytic philosophers that Classical Infallibilism leads to full-blown Idealism or Scepticism. In the light of ordinary language philosophy and common sense philosophy, they found these conclusions unacceptable.⁹⁷ That is the context in which they finally rejected Classical Infallibilism. But there are four ways of doing so. One may reject truth-entailment, discernibility or both; one may also maintain both but allow that distinct properties play each role. All options have instances in post-1950 epistemology.

The fall of Classical Infallibilism can tentatively be dated from Malcolm's (1952).⁹⁸ The paper opens with Prichard's claim that whether we know is discernible (sec. 3 above). Malcolm investigates it by contrasting five examples of ordinary use of "know". In the fourth and fifth, one claims that a river is not dry on the grounds that one saw it flowing earlier that day. In the fourth one's claim is true; in the fifth it is not—the river dried up in the meanwhile. Malcolm judges that we would say that one "knows" in the fourth but not the fifth (Malcolm, 1952, 178–9). He stresses that nothing discernible differs between the two cases and infers that one's "grounds" are identical between the two.⁹⁹ Thus he takes "grounds" to be discernible but not truth-entailing. He concludes that "strong" but non truth-entailing "grounds", in conjunction with truth, are sufficient for knowledge. In a somewhat prescient way, Malcolm finds "surprising" that truth alone could make the difference between

⁹⁶See also Ayer (1940): in spite of its title, the book hardly mentions knowledge at all. Ayer restates the view that any empirical belief has a merely fallible basis (39, 43). His answer to inductive scepticism is that empirical beliefs can be based on "reasonable", though not "demonstrative", inferences (see e.g. 230), not that they can constitute knowledge.

⁹⁷Other factors have undoubtedly played a role, such as the internal difficulties of Idealist programmes. See e.g. Marion (2000b) on the demise of sense-data theories.

⁹⁸It is hard for me to say what is Russell's conception of knowledge in *Human Knowledge and its limits* (1948). He puts forward the "true belief supported by adequate evidence" account with some reticence (Russell, 1948, 170–1). The thrust of the book is that Humean scepticism is averted once we recognise that there are grades of knowledge and that these grades are degrees of probability. My best guess is that he has a view like that of C.I. Lewis's in mind. But if it can be argued that his view is that one knows that p provided that one believes p , p is true and made probable by one's evidence, then he may pre-date Malcolm in defending the Justified True Belief view.

⁹⁹Malcolm (1952, 179): "Was there any way that you could have discovered by reflexion [*sic*], in case (5), that you did not know? It would have been useless to have reconsidered your grounds for saying that there would be water, because in case (4), where you did know, your grounds were identical. [...] Prichard says that we can determine by reflexion whether we know something or merely believe it. But where, in these cases, is the material that reflexion would strike upon? There is none."

knowing and not knowing:

As philosophers we may be surprised to observe that it can be that the knowledge that p is true should differ from the belief that p is true only in the respect that in one case p is true and in the other false. But that is the fact. (Malcolm, 1952, 180)

He nevertheless sticks to the conclusion because he thinks that the only alternative is to require the discernibility of knowing, which entails an unacceptable level of scepticism.¹⁰⁰

Internalist Fallibilists maintain that knowledge requires a discernible property, but deny that it must be truth-entailing. They take over the Probabilistic Sceptics' notion of *discernible indication of truth* and the idea that such an indication is enough to justify belief.¹⁰¹ But they add that in conjunction with truth, it is also sufficient for knowledge. After Malcolm's seminal paper, the view was adopted by Chisholm (1956, 447 and 1957, 1, 16) and Ayer (1956, 34). That is the familiar Justified True Belief analysis. Its main flaw was quickly pointed out by Gettier (1963). In some cases it is a coincidence that the two conditions are satisfied; in such cases one does not know. The view was consequently all but given up.¹⁰² Far from being a long-held conception, the Justified True Belief analysis's shelf-life was a mere eleven years.

The Gettier problem threatens any analysis of knowledge as a conjunction of truth with a non-truth entailing condition. Its apparent lesson is that knowledge requires a truth-entailing condition.¹⁰³ *Externalist Infallibilists* took up the suggestion. On their view knowledge requires a mark of truth, but not a discernible one. A Crude Causal account illustrates the idea.¹⁰⁴ Say that a belief is *caused by the corresponding fact* iff for some p , it is a belief that p and p caused it. The Crude Causal account is that one knows just if one's belief is caused by the corresponding fact. Being caused by the corresponding fact is a mark of truth: if p caused one's belief that p then p is so. But it is not discernible: one could be sufficiently attentive and mistakenly think that one's belief is caused by the corresponding fact while it is not. In the wake of the Gettier problem several Externalist Infallibilist accounts appeared.¹⁰⁵

¹⁰⁰Malcolm (1952, 179). If the Legend was true, it would be strange for Malcolm to be surprised. It is worth noting that Malcolm's objection to scepticism is not merely that it is at odds with ordinary use. For he adds: "We do not think of our usage as being loose or incorrect—and it is not." (Malcolm, 1952, 179, my emphasis). Thus he is just as much making the common sense objection that we obviously know many things and that it is *prima facie* extremely implausible to deny it.

¹⁰¹See sec. 4.5 above on indications of truth and Probabilist Scepticism.

¹⁰²See however Hetherington (1999) and Weatherston (2003) for a spirited defence.

¹⁰³Sturgeon (1993), Zagzebski (1994), Merricks (1995). See Howard-Snyder et al. (2003) for an opposite view.

¹⁰⁴See Goldman (1967); Jenkins (2006) for refined views along those lines.

¹⁰⁵Notably Goldman (1967); Unger (1968); Armstrong (1968); Dretske (1969); Nozick (1981). In

Both views face a weakening question. If the Internalist's discernible property need not entail truth, would any discernible property do? If believing is discernible, any belief has some discernible property. Thus the weakest Fallibilist Internalism identifies knowledge and true belief. In practice, Internalists require more: a discernible property that somehow *indicates* truth. Their task is to say what that involves and to motivate the requirement. For instance, some Internalists require that truth be *probable enough* given one's experience—which they take to be discernible. Their task is to say how experience makes something probable and to motivate the level of probability they require. Similarly, if the Externalist's truth-entailing property need not be discernible, would any truth-entailing property do? The weakest truth-entailing property is truth. Thus the weakest Infallibilist Externalism identifies knowledge and true belief. In practice, Externalists require more: a property that somehow makes it non-accidental that one believes the truth. Their task is to say what that involves and to motivate the requirement. As the True Belief account is a natural endpoint in the rejection of Classical Infallibilism it is no surprise that it appeared in the contemporary period.¹⁰⁶

For a time the preferred strategy to answer the weakening question was to confront candidate accounts to allegedly intuitive judgements about cases. A more fruitful strategy is to ask what roles we expect knowledge to play and how they constrain acceptable weakenings. For instance, if we expect knowledge to enter an explanation of how one's actions may be guided by facts themselves, non-accidental true belief is arguably better suited to the task than true belief.¹⁰⁷

Insofar as several weakenings appear to play legitimate theoretical roles, one will be tempted by pluralist or variantist views according to which "knowledge" is ambiguous or context-sensitive. It is no surprise that such views have flourished in recent times.¹⁰⁸

A putative role of knowledge is to justify belief.¹⁰⁹ Externalist views are

the current literature the prominent Externalist Infallibilist accounts are the safety (Sosa, 1993, 1999; Williamson, 2000; Pritchard, 2005) and virtue-theoretic accounts (Sosa, 2007; Greco, 2010), as well as the combination of both (Pritchard, 2012). The virtue-theoretic account is more precisely characterized as a *Two-tiered* Externalist Infallibilist account. See below.

¹⁰⁶See Sartwell (1991).

¹⁰⁷See Hyman (1999) for the role and Williamson (2000, 3.4) for the claim of explanatory superiority.

¹⁰⁸Malcolm (1952, 181) distinguished a "strong" and "weak" sense of "know". Interestingly, he upholds Classical Infallibilist standards for the strong sense (see notably Malcolm, 1952, 183–6). See also Stine (1976), Lewis (1979, 1996), Unger (1986), Cohen (1988, 1999), Williams (1991), DeRose (1992a, 2009), Hawthorne (2004), Stanley (2005), Fantl and McGrath (2009).

¹⁰⁹In the Hellenistic debate it was assumed that knowledge, and only knowledge, would justify assent. The Probabilist Sceptical idea that something less could justify belief (and not merely guide action) was apparently not introduced before Philo. See sec. 4.5. Lasonen-Aarnio (2010) argues against the idea that knowledge makes belief *reasonable*, but leaves open whether a belief can be both justified and unreasonable.

criticised for failing to secure it.¹¹⁰ The suggestion is that justified belief requires some discernible indication of truth. *Internalist Infallibilism* takes knowledge to require both a discernible indication and a mark of truth. On pains of collapsing into Classical Infallibilism, the same property cannot play both roles. But a straightforwardly conjunctive account is likely to face a *secondary* Gettier problem: when it is a coincidence that one's belief bears both a discernible indication and a mark of truth, one does not know.¹¹¹ On better versions of the view the mark of truth, while not discernible itself, *entails* that one's belief bears a discernible indication of truth. Undefeated Justification accounts illustrate the idea. One these accounts knowledge requires a "justification", which is taken to be a discernible indication of truth, and in addition that one's "justification" is "undefeated", where the justification's being "undefeated" is not discernible but ensures that a belief is true.¹¹² Thus undefeated justification is a mark of truth that entails a discernible indication of truth without being discernible itself. In the wake of the Gettier problem several Internalist Infallibilist accounts appeared.¹¹³

As defined, Externalist and Internalist Infallibilisms are not exclusive. If believing is discernible, for instance, and if it counts as a sufficient "indication of truth", then the two are coextensive. To specify a divide one needs a notion of indication of truth. Internalists with respect to that notion are those who take it to be discernible and entailed by knowing. Strict Externalists are those who deny that it is required or that it is discernible. Since there is no uncontroversial notion of indication of truth, there is no uncontroversial way of drawing the divide.¹¹⁴

A potential source of difficulty for Internalists is that little, or nothing, is discernible. (Externalists face no parallel difficulty, since there obviously are truth-entailing properties.) Naïvely, one may think that many things are discernible. If there is an elephant in your room, then if you are attentive enough,

¹¹⁰BonJour (1980), Lehrer (1990, 162–163).

¹¹¹The argument in Williamson (2000, 3.2) may be adapted, substituting a candidate discernible condition for the internal one.

¹¹²See Howard-Snyder et al. (2003, 306) for the claim that most defeasibility conditions entail truth.

¹¹³Lehrer (1965); Chisholm (1966); Sosa (1969); Klein (1971); Harman (1973); Pollock (1986, appendix), and most of the 'fourth-clause' accounts discussed in Shope (1983). Goldman (1976) and Lewis (1996) defend accounts according to which (roughly) one knows provided one's *experience* entails truth over a range of situations relevantly like one's current situation. Even though these accounts are not usually classified as "internalist", they fall into the Internalist Infallibilist camp if they take experience be discernible.

¹¹⁴Primitivists hold that knowledge is not definable. Since knowing is truth-entailing, they are Classical Infallibilists if they think that knowing is discernible (Prichard, 1950), Externalist Infallibilists otherwise (Williamson, 2000). Williamson is also a Strict Externalist on any way of drawing the divide, since he claims that nothing is luminous, which we may take to imply that nothing is discernible (see sec. 2).

you will notice it.¹¹⁵ However, consideration of illusions, dreams and the like shrink the domain of the discernible.¹¹⁶ Most Internalists retreat to the idea that (some part of) one's *inner mental life* is discernible. (Hence the label. On the New Story, however, Internalists ascribe a central role to the internal because it is discernible, not because it is internal.) One reason for the idea's enduring popularity may be that mistakes about the inner are harder to imagine and to observe. It is not easy to show that someone who believes they are in pain are not. Careful experiment or indirect arguments are needed to show that such mistakes are possible.¹¹⁷ Whether or not the idea is correct, once the discernible base is limited to the inner, Internalists must either be generous on what counts as a sufficient indication of truth or tolerate an extensive scepticism. The dialectic is familiar from the contemporary literature.¹¹⁸

It is often said that "infallibilism" fosters scepticism. If "infallibilism" means imposing truth-entailing conditions on knowledge, that is false. As the True Belief and Crude Causal account illustrate, Infallibilism is compatible with robust Dogmatism. What fosters scepticism is imposing a condition that is both truth-entailing *and discernible*. Even the requirement that "justification" entails truth has no immediate sceptical consequences unless justification is assumed to be discernible. When the requirement of discernible marks of truth is given up, traditional sceptical arguments lose their bite. Accordingly, Scepticism has all but disappeared from contemporary epistemology.¹¹⁹ By contrast, the discernibility requirement raises sceptical worries on its own, since it is doubtful that anything is discernible. The claim that nothing is discernible may foster a new form of Internalist scepticism, but that has yet come to pass.

Fallibilist Externalism holds that knowledge requires a indication of truth that is not discernible nor truth-entailing. Truth must be added as a separate condition. *Prima facie* the view combines the worst of both worlds: being Fallibilist, it faces the Gettier problem, and being Externalist, it forfeits whatever appeal discernible indications of truth have. Surprisingly, however, some accounts have been popular despite being widely taken to have both features. Re-

¹¹⁵Compare Gibbons (2006).

¹¹⁶Compare Malcolm's (1952, 185) attempt to defend the idea that that there is an ink-bottle in front of him now is discernible.

¹¹⁷See Schwitzgebel (2008). Adapting Williamson's (2000, chap. 4), one may also argue that for any property *P*, there are borderline cases in which one is attentive enough and either one belief's has *P* and one fails to believe that it has or one's belief lacks *P* and one believes that it has it.

¹¹⁸See e.g. Bergmann (2006).

¹¹⁹Significantly, contemporary defences of scepticism (Unger, 1975; Frances, 2005) appeal to wholly new arguments. Unger's central argument for scepticism is a normative one (drawing on Kripke's 2011 dogmatic paradox): if one knows, a dogmatic attitude is justified; no dogmatic attitude is justified; hence one does not know. Frances targets second-order knowledge only and appeals to the (highly debatable) principle that if some apparent expert believes *p*, no non-expert knows *p*. He argues that if one knows that someone knows something, they know that that person believes something, but some apparent experts believe that there are no beliefs, so no non-expert knows that someone knows something.

liabilism, Proper Function and Virtue-Theoretic accounts are cases in point.¹²⁰ On closer examination, however, the accounts are Infallibilist.¹²¹ On their best versions, they require a mark of truth that *entails* an indication of truth. By contrast with Internalist Infallibilists, however, the indication of truth is not supposed to be discernible. Call the view *Two-tiered Externalist Infallibilism*. For instance, some Virtue-Theoretic accounts hold that knowledge consists in a belief that is *true because competently formed*. Being truth because competently formed entails truth, but is not discernible. It entails *being competently formed*, which is a matter of one's belief being the product of cognitive processes that reliably yield truths. The latter is not discernible either, but it is taken to *indicate* truth. The appeal of these accounts is to offer a substitute to the Internalist's discernible indication of truth that does not require discernibility. On the one hand, it is easier to argue that they indicate truth; on the other hand, it has been argued that they fail to justify belief. Again, the dialectic is familiar from the contemporary literature.¹²²

The demise of Classical Infallibilism in mainstream analytic epistemology was impressively sudden and complete.¹²³ The view may still linger on, however, as a theory of *evidence*. Post-Gettier epistemology has witnessed an increased use of the notion of *evidence* as distinct from knowledge.¹²⁴ Some epistemologists seem to implicitly think of evidence in Classical Infallibilist terms: our evidence consists in discernible marks of truth or propositions for which we have such marks. For instance, they may think that our evidence consists in discernible aspects of our experience. If these philosophers dispense with a notion of knowledge entirely, their view is essentially a notational variant of Probabilist Scepticism, with "evidence" in lieu of "knowledge". Most often, they endorse a looser standard for knowledge; their view is a variant of Internalist Infallibilism. Note that the contemporary rise of the notion of evidence is partly due to the Bayesian tradition. If, as I suspect, the tradition has roots

¹²⁰See Goldman (1986, 2011) for Reliabilism, Plantinga (1993) for the Proper Function account and Sosa (1991, 2007); Zagzebski (2000); Greco (2010) for Virtue-theoretic ones.

¹²¹Plantinga's (1993, 17–9) original account was Fallibilist. In the face of Gettier problems (Greene and Balmert, 1997), he adopted an Infallibilist version (1996, 328; 1997, 144). Goldman's (1986, 47) account includes a "local reliability" condition for which he refers to his Goldman (1976). The condition is truth-entailing. Sosa (1991, 238) stresses that belief that is both true and (intellectually) virtuous is not enough; in Sosa (2007, 23) he proposes that knowledge is belief that is true *because* virtuous.

¹²²See notably Goldman (1979); Lehrer and Cohen (1983); Cohen (1984); Sosa (1991).

¹²³Almeder's (1974) answer to the Gettier problem is a rare exception.

¹²⁴The notion would require an history of its own. Up to Descartes "evidence" is almost exclusively a name for the property of being "evident" (Buridan's *evidentia* is now translated as "evidentness"). In Locke the term is used likewise, but also for that which is evident. Moreover, he takes that which is evident to make things certain or probable. He does not say that the former is "evidence for" the latter, but that was a natural extension of his use which is found *e.g.* in Hume (2007, sec. X). I submit that these authors take the evident to bear discernible marks of truth. They may restrict the evident to what bears *non-derivative* discernible marks of truth, as opposed, *e.g.*, to what is known by deduction.

in Classical Infallibilism, it is not surprising that its notion of evidence has a Classical Infallibilist flavour.¹²⁵

6 Conclusion

The New Story is simple but surprisingly powerful. It makes sense of a range of features of the history of epistemology. Historical views are hard to place on the contemporary map and conversely because the latter reject the former's conception of knowledge. Scepticism was influential in the past, but not now, because past views lead to it and contemporary ones do not. Past philosophers did not discuss the definition of knowledge because they did not disagree about it. Idealism was predominant for a couple of centuries because it was a desperate attempt to rescue Dogmatism within the bounds of Classical Infallibilism. It disappeared almost entirely afterwards because it had lost its purpose. The Gettier problem appeared in the mid-twentieth century because views clearly subject to it did not exist before. Contemporary epistemology divides into Externalism and Internalism because they are the two main ways of giving up the traditional view. Contemporary epistemology has two central notions, justification and knowledge, because each is felt to capture one side of the traditional view: discernibility and truth-entailment. Internalist notions of evidence gained popularity in the contemporary period because they offered a new home for Classical Infallibilist intuitions. Needless to say, no remotely comparable explanatory success can be adduced for the Legend.

Epistemologists may draw a few lessons from the New Story. First: *we are all Infallibilists now*.¹²⁶ Post-Gettier and Classical views alike put a substantial truth-entailing condition on knowledge. What sets contemporary views apart is not to require that the condition should be *discernible*.¹²⁷ If it were, there would be a non-trivial *method* that a sufficiently attentive subject could follow to avoid error entirely. Contemporary views deny that there is one.¹²⁸ Second: *the main divide now is whether knowledge additionally requires an indication of truth, and if so, a discernible one*. In particular, whether knowledge requires an indication of truth that correlates with some normative standard—"justified" or

¹²⁵See in particular Jeffrey (1965; 1992), whose epistemological project is to strip the Bayesian conception of evidence of its infallibilist roots.

¹²⁶See Sturgeon (1993).

¹²⁷Contrast with Cohen (1988) and Reed (2002a) who characterize "fallibilism" as the view that some beliefs with non-truth-entailing evidence (Cohen) or with non-knowledge-entailing justification (Reed) constitute knowledge. They suggest that "infallibilism" has sceptical implications, but that is so only if evidence and justification are constrained in certain ways. If one's evidence is everything one knows, and if the only justification for believing *p* is that you know that *p*, "infallibilism" in Cohen or Reed's sense has no sceptical implications. By contrast, if evidence and justification are required to be *discernible*, "infallibilism" in both senses leads to Scepticism.

¹²⁸See Williamson (2008). A method is *non-trivial* if it allows some beliefs.

“reasonable” belief. *Strict Externalists* deny it; *Two-Tiered Externalists* require it; *Internalists* require it to be discernible. Third: *contemporary epistemology is revisionist*. That does not mean that we have shifted topic: we talk about the same thing as tradition did, though we disagree sharply over what it involves.¹²⁹ But that means that contemporary epistemology goes against a deep-seated tendency in philosophical—and perhaps ordinary, see below—thought about knowledge. Thus contemporary epistemologists have reason to treat their own unreflective judgements with care. For instance, we have seen that Classical Infallibilist intuitions may be unwittingly at work in the way some philosophers think of justification or evidence.

I have little doubt that the Justified True Belief analysis will keep on being used as a starting point in epistemology courses for a long while—being loosely motivated instead of called “traditional”, or worse, being simply called an analysis that was “thought to be traditional”. That is regrettable because that prevents addressing Classical Infallibilist intuitions head on and puts in play an unexamined notion of “justification” that attracts discernibility intuitions. Students are then in a bad position to integrate past and contemporary epistemology, to make sense of sceptical arguments and to see the relevant divides of the contemporary scene. Be that as it may, if somebody wished to update their lectures in light of the New Story, what should they do? One suggestion is to start with the conflict between the obvious fact that we know many things and appealing lines of thought that lead to the conclusion that we do not.¹³⁰ Classical Infallibilism may be blamed for the conflict and the Justified True Belief introduced as an attempted solution. One can then proceed as usual. Another, more radical one, is to postpone questions of definitions entirely and focus instead on the roles knowledge is meant to play. One can then examine whether discernibility and truth-entailment requirements emerge from those and let the Classical Infallibilist and Justified True Belief pictures emerge.

There are many gaps in the New Story. These are promising areas of further study. The present discussion focused on a small sample of Western philosophers and on non-inferential knowledge. Many periods and authors are yet to be discussed. Inferential knowledge is particularly troublesome for Classical Infallibilism; it is worth examining whether philosophers faced the predicted trouble. Some events remain to be explained: why Scepticism became influential again the Modern period, why Idealism was not attractive before the Modern period, why Classical Infallibilism did not collapse before the mid-twentieth century. We should also investigate how views on knowledge inter-

¹²⁹Contrast Pasnau (2013).

¹³⁰Compare the opening pages of Lewis (1996).

acted with views on necessity, belief and content, all of which appear in the Classical Infallibilist's definition of knowledge. The role of Classical Infallibilism in broader epistemology should also be explored: how it impacted conceptions of inquiry, science and norms of belief. The history of the influential idea of indication of truth is also worth studying in detail.

One question the New Story obviously raises is: why was Classical Infallibilism so widely and strongly held? A *scholarly* hypothesis would be that Classical Infallibilism was somehow transmitted through the Western philosophical tradition. Several may be explored.¹³¹ A *folk* hypothesis would be that Classical Infallibilism is somehow rooted in the ways (Western) people ascribe knowledge. Since its recent demise in analytic circles is unlikely to have had any influence on non-philosophers, we should be able to observe these roots now. Hence psychology can be brought to bear on the New Story. Since ordinary people are not sceptics, they are not straightforwardly applying an implicit Classical Infallibilist theory of knowledge. But they do tend to deny knowledge in the light of indiscernible possibilities of error.¹³² Whatever mechanisms are responsible for that tendency may have contributed to the long-lasting appeal of Classical Infallibilism.¹³³ Needless to say, scholarly and folk hypotheses may be combined.

The interaction between history and psychology goes both ways. The Legend has been taken as *prima facie* evidence that the folk conception of knowledge is justified true belief.¹³⁴ That has led to a focus on knowledge attributions in Gettier-style cases.¹³⁵ The New Story casts doubt on that evidence and suggests focusing on ascriptions in sceptical scenarios.

Another question is whether Classical Infallibilism is a specifically Western phenomenon. There is some indication that it is not. For instance, there is

¹³¹One is transmission of the positive Hellenistic conception. However, even though Hellenistic epistemology filtered into neo-Platonism and medieval Aristotelianism, its wider impact remains to be established. Another is transmission on the authority of sceptical arguments: by trade, philosophers are taught to take sceptical arguments seriously, and so they endorse conceptions of knowledge that make these arguments serious. That hypothesis reverses the natural order of explanation. Another is that Classical Infallibilism was primed by some widely-read texts, such as Plato's *Republic*. Or course a combination of such factors is possible.

¹³²See Nagel et al.'s (2013) *Sceptical Pressure* case. In the control story, Emma believes that a piece of jewellery displayed in a shop is a diamond necklace. In the sceptical pressure variant, it is added that "Emma could not tell the difference between a real diamond and a cubic zirconium fake just by looking or touching". The addition drops the number of subjects who ascribe knowledge (in a forced-choice paradigm) from 75% to 41%. See also Nichols et al. (2003).

¹³³One simple suggestion is that people are applying a Classical Infallibilist conception but with only a salient sample of error possibilities in mind. However I doubt that knowledge ascription goes merely by way of applying some implicit theory. For all we know it could involve a mix of heuristics, comparison to paradigm cases, and bits of theory.

¹³⁴See e.g. Starmans and Friedman (2012, 663).

¹³⁵Recent studies suggest that the ordinary conception is *not* justified true belief (Machery et al., 2015).

evidence of it in classical Indian philosophy.¹³⁶ Tantalizingly, there is even evidence that its rejection there antedates the Western one by half a millennium.¹³⁷ The leads are worth pursuing.

¹³⁶See Phillips (2015, sec. 1.1 and 3). Briefly put: classical Indian philosophers shared the view that knowledge is thought (“cognition”, but in a non-truth-entailing sense) generated by a “knowledge-source” (*pramāṇa*), where the latter is truth-entailing. A central debate was whether and how *pramāṇa*-generated thoughts are “certified” to be such. On one possible reading, they tacitly assumed that being *pramāṇa*-generated had to be discernible in order to yield knowledge, and the debate was about whether and how it was discernible. Note that the Classical Infallibilist reading of early Indian epistemology is incompatible with the presentation given by Stoltz (2007, 401–6). Stoltz stresses that Indian philosophers took knowledge to be a factive mental state and endorsed something like a causal theory of knowledge. So far that is consistent with the Classical Infallibilist’s truth-entailment requirement. But he adds that on their view knowledge is not luminous and knowing can be phenomenally like being mistaken (405–6). These claims are incompatible with the Classical Infallibilist’s requirement of a *discernible* truth-entailing property. However Stoltz appears to ascribe them to classical Indian philosophers only because they take knowledge to be a mental state and they endorse a causal theory. But we have seen that Descartes endorses the discernibility requirement even though he takes clear and distinct perception to be a factive mental states and we have seen that Stoics endorse a discernibility requirement even though they have a causal theory of cognitive impression. Hence the fact that classical Indian philosophers took knowledge to be a factive mental state is not enough to conclude that there are externalists and to rule out a Classical Infallibilist reading.

¹³⁷One on possible reading, Gaṅgeśa—c. 1325 CE, founder of the new era of the “Logic” (*Nyāya*) school—denies that the discernibility of being *pramāṇa*-generated is necessary for knowledge. See Phillips (2004, 11) on Gaṅgeśa’s “fallibilism”. Careful examination is needed, however. Phillips (2004, 10) calls Gaṅgeśa’s epistemology “externalist” because he does not take knowledge to require that one is aware or knows that one’s thought is *pramāṇa*-generated. But that does not make a view externalist in the modern sense, for it is compatible with the requirement that being *pramāṇa*-generated is discernible (sec. 3). Moreover, Gaṅgeśa grants that there are “signs” of whether a thought is *pramāṇa*-generated (Phillips, 2004, 11–2). If he takes those to be present just when a thought is *pramāṇa*-generated, and if being sufficiently attentive is enough to be aware of them, then he is endorsing discernibility after all.

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